Clinical Lecture
ON
STRICTURE OF THE URETHRA AND ITS TREATMENT.

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GENTLEMEN,—The wards of a surgeon to a large hospital like ours are seldom destitute of cases of stricture of the urethra, and in the course of a few years he cannot fail to acquire experience of this serious affection in all its various degrees and phases. As there are few surgical diseases whose safe, speedy, and, if possible, pleasant relief is more essential to the welfare and satisfaction of patients and to the credit of the practitioner, I think I may usefully occupy your time by imparting this experience to you. In the present lecture I propose not to take the history of an individual case or individual cases as a peg on which to hang my remarks, but to lay stress on a few points which I regard as of fundamental importance in the treatment of stricture, and which I have often insisted on during my visits to the wards.

My first point is that no pains should be spared by the practitioner, be he student, house-surgeon, or surgeon, to avoid making false passages. This may seem only a special application of the cardinal rule that the first duty of a medical man is to abstain from doing harm to his patients, but I propose to go beyond the mere inculcation of a general maxim by pointing out the way in which its violation may be prevented. The presence of a false passage augments the difficulty of treating a severe case of stricture of the urethra to a degree which it is scarcely possible to exaggerate. However severe a stricture may be, the surgeon will, as a general rule, succeed in passing a fine bougie by perseverance, gentleness, and tact; but if a false passage exists, the bougie can with difficulty be prevented from entering it, and it is often more by good luck than merit that the orifice of the stricture is penetrated. If we disregard the few cases of traumatic stricture, the ordinary history of a case of stricture admitted into the hospital is this. The patient has had gonorrhœa, and generally more than one attack. His stream of urine has been narrowed for some time, but he has been able to pass it fairly, and has not troubled the doctor, or, if he has, he has not submitted to treatment long enough to be cured. He indulges in unusual conviviality, and becomes the subject of retention of urine. Then he applies at the hospital. Perhaps he declines to stay in—only comes for temporary relief,—and the house-surgeon or dresser must resort to the catheter. The strictured part of the urethra being now congested, the passage is closed, and it is impossible to pass a catheter of a fair size, and a No. 1 or 2 silver catheter is tried. The mucous membrane in the neighbourhood of the stricture in its congested state is unduly soft, and consequently the point of the fine catheter readily penetrates it and makes a false passage, although the operator himself may remain unconscious of having used any force. As a catheter cannot be passed, the patient is sent into the wards, an anæsthetic is given, and another and perhaps a prolonged attempt is made to pass the catheter, but without avail. The instrument only enters the false passage and aggravates the mischief, and thus the false passage is established which entails so much subsequent trouble on both the patient and the surgeon, and interferes with the cure of the stricture. False passages are so frequently made in this manner that I do not hesitate to recommend abstention from catheterism, wherever it is practicable to abstain from it, in dealing with retention, and abstention especially from the employment of the finer instruments. If a No. 5 or 6 silver or flexible olivary catheter can be gently passed, well and good; if not, the patient should be taken in, ordered a warm bath, a drop or two of croton oil or a dose of house medicine, and afterwards some tincture of opium or the liquor opii sedativus, whilst warm fomentations are applied to the abdomen. Retention generally yields to these measures within twenty-four hours, and there is no danger of rupture of the bladder from over-distension within that period, or, according to Mr. Hancock, within forty-eight hours from the time of its commencement. If the surgeon is afraid of this accident, he can aspirate the bladder or tap it above the pubes, but the latter measure and puncture per rectum, which was popular some years back, are operations to which I have not had occasion to resort for a long time. No after-trouble has arisen in the few cases in which I have directed the employment of aspiration, although I am bound to mention that abscesses, extravasation of urine, and even rupture of the bladder have followed it or been attributed to it. Notwithstanding these impeachments, I regard aspiration as a valuable aid in exceptional cases of retention. One or two of the other sources of false passages in former years are now, I think, almost exhausted. One was the practice, and the inculcation by teachers of the necessity for the practice, of the *tour de maître* in passing a catheter. An instance of this came within my cognisance when I was a student at the London Hospital Medical College and was attending the lectures of Mr. John Adams, my predecessor in the anatomical chair. Mr. Adams' lectures were distinguished by a terse and graphic style of description, an Abernethian humour, and an application of anatomical facts to surgery, which always secured the attention of his class. One day when he was discoursing on the urethra and its flexures in the dependent posture of the penis, he demonstrated the mode of introducing a silver catheter, and impressed on his hearers the advisability of mastering the turns of the *tour de maître*. At the conclusion of his lecture an attentive auditor resorted to one of the house surgeons with whom he was acquainted and asked to be allowed to practise catheterism. A patient with rather a large prostate, requiring regular catheterism, was assigned to him, and at his first attempt the student triumphantly accomplished the *tour de maître*, but at his second essay he made the final depression of the handle either too soon or too late, and the point of the catheter hitched against the prostate and caused hæmorrhage, which had to be arrested by the pressure of lint round the penis. It happened to be Mr. Adams' visiting day, and, finding his patient *hors de combat*, he had to be informed of the cause of the misadventure. Curiously enough, Mr. Adams was less gratified with the attention of the student to his lecture and adoption of his advice than might have been expected, for he took occasion to observe to those around him that Mr. —— might be a very clever man, but he trusted that he would not pass any more catheters on his cases. A second cause of the diminution of false passages is the more general preference for the flexible instruments now so extensively made and used, but false passages are still so common in severe cases of stricture as to need all the words of caution which I have uttered concerning them. In congestive conditions of the mucous membrane and in children the urethra is readily penetrated, and there are certain parts of the urethra where obstacles to the passage of instruments present themselves. Sir Henry Thompson lays special stress on three spots in the urethra where this hindrance commonly occurs. The first source of obstruction is close to the external meatus, and is constituted by the *lacuna magna;* the second is where the bulb joins the membranous portion, and the canal, from being wide or dilatable, becomes less so; and the third and last is at the neck of the bladder—the so-called "stricture at the neck of the bladder," which does not ever exist, but "which was a household word some years ago." The *lacuna magna* is to be avoided by following the floor of the canal; the narrow membranous portion at the bulb is to be avoided by keeping the point well against its roof; and the same arrangement or the use of the coudée catheter will overcome an obstacle at the neck of the bladder. Whilst agreeing in the main with these observations, I attach more importance to the passage of the urethra through the triangular ligament combined with the narrowing at that spot than to the narrowing itself. Special difficulty sometimes presents itself in children at this point. A sound, a catheter, or a grooved staff, depressed by its own weight below the level of the orifice, is apt to hitch against the urethral wall as it passes through the triangular ligament, and if the instrument be incautiously pushed against the obstruction, instead of being withdrawn slightly and passed in an altered direction, it may penetrate the passage, perhaps without the cognisance of the operator, and glide

beneath the urethra and the prostate gland; it may even reach the recto-vesical pouch of peritoneum. The long sounds with large curves of equal thickness as far as the point, and the long staffs which used to be employed for lithotomy in children, where the length of the instrument supplied a dangerous amount of leverage, were particularly liable to occasion false passages. Most surgeons of experience must have noticed this difficulty in passing instruments, especially, but not exclusively, in children, at the site of the triangular ligament. The utmost gentleness, allowing the instrument to find its way almost by its own weight, perhaps the injection of oil into the urethra before using catheters, staffs, or sounds, constitute the best means of overcoming and avoiding obstacles; and whenever obstruction occurs, either at the triangular ligament or in the prostate gland, the greatest assistance may be derived, both in children and in adults, by passing the left forefinger into the rectum and raising the end of the instrument. There is an old man now in the wards with chronic cystitis, in whom this difficulty exists at the site of the triangular ligament. The point of the sound or catheter sinks below the orifice in that structure, and is arrested by it, but when the forefinger is placed in the rectum, and the extremity of the instrument raised, it passes through readily enough. I believe, therefore, that, so far as false passages are concerned, the neighbourhood of the triangular ligament must certainly be regarded as "the dangerous region." Of late years sounds have been greatly improved by shortening and enlarging the beaks, and lithotomy staffs for children have been lopped of their unfair proportions, so that the danger of making false passages has been minimised. Nevertheless, the danger still exists, and any word of caution that can be given to the inexperienced must be opportune. I have sometimes thought that the veru montanum, when swollen, constitutes an obstacle, and that a small instrument may catch in the sinus pocularis. At all events, I have obtained from the post-mortem room a specimen in which a false passage ran beneath the prostatic mucous membrane from a point in front of the veru montanum to the trigone of the bladder.

My second point will be the value of rest in the treatment of stricture. Most strictures present three elements combined in each instance in different proportions. There is the congestive or inflammatory element, shown by the ready bleeding; there is the spasmodic element, shown by the catheter being gripped and held; and there is the organic, organised, or fibrous element. The organic element is the foundation or the fundamental element of a stricture, and it is doubtful whether either of the other elements alone can constitute a stricture. There must, I think, be at all events a tincture of the organic element. Now, for the removal of the congestion and the spasm accompanying an organic stricture after that alcoholic indulgence which is the source of so many injuries and diseases, and without which death might oftener result from the decay of nature only, the use of instruments is not only not necessary, but may be positively detrimental. And this is the justification of rest in the treatment of stricture. The great apostle of rest, Mr. John Hilton, has treated of many parts of the body in his fascinating volume on Rest and Pain, but has said nothing of the application of rest to the treatment of stricture of the urethra. This omission, however, has been supplied by another philosophical surgeon. Recoiling from the mischief and mishaps due to too assiduous instrumentation of the urethra, Mr. Savory advocated a much more prolonged resort to rest in the treatment of stricture than other surgeons have usually either recommended or adopted. Confinement to bed and the exhibition of opium were, if I rightly remember, the main agents by which rest was to be secured. To a considerable extent I agree with Mr. Savory's remarks; for it is an undoubted fact that when patients are admitted into a hospital suffering from stricture which has been aggravated by congestion and spasm, the treatment which Mr. Savory recommended will suffice ordinarily to remove both the congestion and the spasm, and to restore the patient to the condition in which he existed prior to the attack. Rest for a week or a fortnight is very beneficial, and at the end of that period the surgeon may find that he can pass a bougie, perhaps as large as No. 6 or No. 5, with little trouble, and with no danger of making the patient bleed or creating a false passage. Rest is also very advantageous when false passages have been made. I am therefore never in a great hurry to begin catheterism. On the other hand, there are cases of great severity, very tight and narrow strictures after all the congestion and spasm have gone, which will only admit a fine bougie when you have carried rest to its utmost limit short of an inactivity which could not appropriately be designated as masterly. I remember a stricture case, in which the patient died from bladder and kidney mischief not long after admission, in which no instrument could be passed. At the post-mortem examination we found in the membranous portion of the urethra an organic stricture, consisting of a kind of septum, across the urethra, having at one spot the finest pin-hole aperture, and through this the urine had dribbled. In his admirable teaching in the post-mortem room, Dr. Sutton used often to lay it down as a general rule that in cases of stricture in which it has been found impossible to pass a bougie from before backwards the surgeon would have been able to do so from behind forwards, and that this could almost always be done at the necropsy. This is undoubtedly true in many cases. It is the foundation of the plan suggested by Mr. Furneaux Jordan, of cutting into the membranous urethra, or even the bladder, from the rectum, and introducing a flexible bougie from behind forwards. Another operation based on this fact consists in tapping or incising the bladder above the pubes, and passing a catheter from the internal meatus to the stricture as a guide to a perineal incision. This procedure originated with John Hunter, and in recent years has been practised by the late Mr. Callender, and in 1878 by Mr. Howse in a very difficult case of traumatic stricture. My own case was an exception to the rule that an instrument can be passed through so-called impermeable strictures from behind forwards, for not the finest filiform bougie could be passed either from the front or from behind, even when the specimen was removed from the body. In such a case rest till doomsday would not have altered the stricture one iota. By all means, then, employ rest as far as it may avail for the abolition of the congestive and spasmodic elements of a stricture, and for the avoidance and healing of false passages, but when you have reached the limit of forbearance, at once commence the use of instruments in a regular, persevering, and systematic way, for without instrumental aid an organic narrowing cannot be removed.

My third point is the necessity of eclecticism in the use of instruments. For a long period our insular prejudices and preference for silver catheters, made on an irregular scale, prevented surgeons from profiting by the great improvements introduced by the ingenuity of our Gallic neighbours, who were much in advance of us in regard to the treatment of stricture. This state of things was fostered by our ready submission to authority. There is not a body of men existing anywhere who more blindly follow authority than the members of the medical profession, and in this instance authority emanating from University College inculcated the superior value of the silver catheter and metal instruments. Now, however, the scientific pendulum has swung to the opposite side, and it is recognised that everyone who has experienced the passage both of a silver and a soft flexible instrument on his own person will give so decided a preference to the latter that it may be enunciated as an axiom that a metal instrument should never be employed when a soft instrument will suffice. It is not possible always to adhere to one description of catheter. Surgeons of large experience must have met with cases in which it was difficult to pass a flexible instrument, whilst a silver or metal instrument glides in easily; and other cases in which silver or metal instruments may be arrested, whilst flexible instruments are admitted with facility. Then there are cases which seem, indeed, to be cases of stricture, for a small catheter cannot be passed, and the surgeon is told by his house surgeon: "This is a very bad case of stricture, sir; I cannot get in a No. 1 or ½"; and the surgeon takes a full-sized silver catheter and passes it into the bladder without a hitch. These are the kind of cases which have been diagnosed as stricture, and which from some other urinary trouble have reached the post-mortem table, where the cynical pathologist, not without an incompletely veiled note of exultation, after acquainting himself with the diagnosis entered on the ward paper, announces that he cannot find a trace of stricture throughout the urethral tract. The explanations of the three kinds of cases which I have just mentioned comprise such conditions as spasm (and this is a very real condition now and then); slight obstruction, which suffices to arrest a flexible instrument; tortuosity of the canal, which may stop a silver instrument; a slight bar in the prostate, or at the neck of the bladder; large follicles,

like the *lacuna magna* and others, which all look towards the meatus, and which are avoided when an instrument is passed from behind forwards, but often hinder the progress of fine bougies and catheters; the narrowing of the urethra at the junction of the bulbous and membranous portions; the passage of the urethra through the triangular ligament; and some difficulty in micturition due to other causes than stricture, but hastily set down as due to stricture itself. The surgeon of experience is alive to all these sources of fallacy, and runs them over in his mind when a difficulty occurs. Hence he almost intuitively adapts his means to the end in view; and it is this superiority in experience and judgment which may enable the older man, perhaps even the old fossil, to cope with the brilliancy of youth, a little too confident in its own opinions and powers. There is a further fallacy, to which Mr. Berkeley Hill has directed attention; and that is, that a narrowing near the meatus may give rise to the semblance of a stricture some inches down; with the division of this narrowed part the suppositious stricture at or near the bulb entirely disappears. Another instance of varying our means is afforded by a simple expedient recommended by authorities in using fine bougies. Our treatment of the tightest strictures consists in endeavouring at first to introduce the finest bougie, and when this is accomplished (*ce n'est que le premier pas qui coûte*) the stricture may almost be regarded in the generality of cases as cured. The bougie is retained and the patient passes urine by the side of it. As soon as the stricture is dilated sufficiently, a bougie or catheter a size larger is passed, and then the French catheters (much superior to the English variety) are resorted to till the full size is attained. Now, in passing a fine bougie, success is much more likely to be secured if it is turned up a few lines from the point. By this means it is lifted from the floor of the urethra or turned away from contact with the urethral wall, and more readily avoids follicles, and enters the orifice of a stricture which may be placed in any position in relation to the circumference of the canal. I have often succeeded by practising this simple manœuvre, when subordinates, not initiated into this trick of the trade, had failed. Larger catheters and bougies also pass more readily when turned up at the point, and the French coudée catheter is one of the most useful instruments, especially for employment by the patient himself, in cases of enlargement of the third lobe of the prostate. When you have selected a filiform bougie, whether flexible or of catgut or whalebone, and bent it up at the point, it is a good plan to inject oil into the urethra. The bougie is then introduced, and a rotatory movement given to it whenever it is arrested, and when it arrives at the stricture. By twirling it round between the finger and thumb as it is pressed onwards, the tip is enabled to enter the strictured part. If it becomes engaged in a lacuna or a false passage, you may either withdraw it a little and then twirl it on again, or leave it there and pass a second, and if this also gets into another lacuna or false passage you may pass a third and repeat the process until all the lacunæ or false passages are filled, when another is passed, and will probably traverse the stricture unless it becomes bent upon itself. Success, however, does not always attend this ingenious method, and I generally prefer persevering with a single filiform bougie. Whalebone is the best material if the stricture resists penetration, but, being stiff, it may make a false passage without proper care. If the stricture admits a filiform bougie the surgeon has open to him more than three courses. He may leave the bougie in for two or three days and thus obtain what may be called physiological dilatation of the stricture. This course I prefer very much to resorting to any variety of physical force, open or disguised. A covert way of applying physical force is to employ tapering bougies, and long ones, with a fine or filiform extremity, are made for this purpose. The objection to this wedge-like pressure is that the stricture resents it, and on removal of the bougie swelling takes place and the canal becomes blocked. A bougie that is left in a stricture ought to pass quite easily through it. If you try to hurry the dilatation of a stricture, you soon find out the truth of the proverb, "The more haste the less speed." *Festina lente*, as Mr. Harrison advises, is an excellent maxim. The wedge-like method of dilatation may be carried out by means of other instruments now before us. There is the American plan of screwing on to the small bougie one of larger size, or a catheter, and pushing forward the small bougie so as to double it up inside the bladder. Either a flexible or a metal instrument may be screwed on to the bougie. Then there is the plan of sliding catheters over the filiform bougie. I will not undertake to say when the sliding principle was first introduced, but Dr. Andrew Buchanan and Mr. T. Wakley introduced instruments of this kind. Here is a very long tube sliding over a bougie which, I am told, is used sometimes by one of my colleagues, and may be applied indifferently to the urethra and the œsophagus. I have not had any experience of it, but I have employed with advantage Gouley's tunneled catheter on the recommendation of Mr. Reginald Harrison. This catheter which I have in my hand is threaded near the point on to this whalebone bougie, which is first introduced into the bladder through the stricture. By exercising a little pressure Gouley's catheter can generally be induced to slide along the bougie through the stricture into the bladder, and seems to me to be the best instrument of the kind for retention cases. Again, Holt's dilator may be screwed on to a filiform bougie, which is pushed before it into the bladder, and rapid dilatation or disruption practised. Holt's dilator has been loudly extolled by some and as loudly condemned by others. It may be employed in one of two ways—either for forcible splitting of the stricture, or quite gently, persuasively, and almost lovingly, after the manner of a glove stretcher. In this latter way the tube is insinuated along its guide, and the stricture sufficiently stretched to permit a larger instrument than before to be introduced. When employed for disruption the tubes are pushed rapidly and forcibly along the guide. Most surgeons, I think, prefer internal urethrotomy to splitting; for splitting, it is said, is not a truly scientific method. The surgeon does not know precisely what he is doing. Not only does he tear through the stricture, but the rent is liable to invade the healthy urethra to an extent which the surgeon can neither regulate nor foresee. The rent is ultimately repaired by fibrous tissue, which contracts, and a bad traumatic stricture is added to the original narrowing. Mr. Teevan used to say that he had a black list of bad cases to bring against the splitting method, whilst the supporters of the plan aver that they never saw any harm result from it. Internally urethrotomy has been equally lauded and condemned. I have used both methods sparingly, and, so far as my experience has gone, with no other than good results. But there are special dangers from all instruments and operations, and occasionally from internal urethrotomy. You may have undue hæmorrhage, extravasation, rigors, and suppression of urine, which will be a set-off against the ill effects sometimes following splitting a stricture. Even simple catheterism has its fever, and, without any fault of the surgeon, may be attended by a fatal issue when the kidneys are unsound.

The last point to which I ask your attention to-day shall be the necessity for an accurate diagnosis of strictures—their size, shape, position, number, and nature. For this purpose we can scarcely dispense with the bulbous instruments which are known as the bougies or sondes à boule, and the bougies or sondes à demi-boule. "The shape of the bullet of an exploring sound best suited to its purpose," says Mr. Berkeley Hill, "is that of a turkey's egg, which is a little more pointed than that of the common hen. The circumference of the big end corresponds to the number of the sound. The bullet is attached to a slender stem no thicker than No. 5 French. When made of flexible material the stem should be marked in inches and half-inches by white rings, the fifth inch from the point having a wider ring than the rest to serve as a landmark. The position of any obstruction can at once be noted by observing how many rings have passed the meatus. Again, the bulb at the end of a slender stem transmits impressions from only that part of the canal against which it is pressed, and as it passes along the canal it is checked by an unyielding point, or gives slight pain to the patient whilst it traverses an inflamed area. Directly the wide bulb has passed these situations of disease and reached a healthy part of the urethra, no sense of resistance is felt and no discomfort experienced by the patient until the bulb arrives at the next diseased locality, because the slender stem does not distend the urethra. Thus the bulb and graduated stem enable the surgeon to ascertain the number, length, and exact position of the indurated or inflamed patches of the urethra. When no stricture is present, no difficulty checks the passage of the bulb to and fro in the urethra if the triangular ligament be not passed. At that point the change of direction and often a slight diminution in calibre

of the urethra through the orifice in the anterior layer of the perineal fascia to twenty-seven or twenty-six millimetres usually check and sometimes stop the passage of a bullet bougie, and pain is felt by the patient. But it is seldom, if ever, necessary to pass the triangular ligament to discover unyielding parts of the urethra. Old well-marked strictures do invade the membranous part, it is true; but such have so greatly altered the form of the urethra in front as well as behind the perineal fascia that their detection is easy, and the bullet sound is not needed to discover such indurations." Three sizes of these flexible bullet sounds are generally made, corresponding to about Nos. 8, 12, and 14 or 15 English catheters, or 17, 22, and 25 or 26 French catheters. There are several advantages to be gained from the use of the bougies à boule, which, as Mr. Teevan was constantly insisting, must be distinguished from the bougies olivaires. By their aid you can detect slight and commencing strictures which would be overlooked by the mere use of ordinary flexible or gum-elastic or silver catheters or sounds. If one of these catheters or sounds passes a stricture on entrance without detection, it will pass it on its exit; but a bougie à boule of proper size, if it passes the stricture on entrance, will detect it on withdrawal, for the shoulder catches against the narrowed part owing to the contraction of the urethra behind the bulb of the instrument. A second advantage of the bullet sounds is that you can ascertain the number and exact position of the strictures present. I have used them for the last ten years, and by their means have become acquainted with a fact which I should never have ascertained by the use of tapering or cylindrical sounds or catheters, and that is that urethral stricture is very often multiple. There are generally two, three, and sometimes four strictures in an affected urethra. As these strictures are of different degrees of severity, it is quite easy to overlook all but the worst contraction. There may be a contracted meatus, a narrowing in the glandular portion, a stricture two or three inches down, and a fourth, and perhaps the worst, at or near the bulb. If the less conspicuous narrowings are overlooked, the patient does not not derive the full benefit from treatment, and is more likely to relapse. Thirdly, the bougie à boule is most useful in discovering congested patches in the urethra which will become the site of stricture, and whose presence is the cause of a gleety discharge after local excitement now well recognised as indicative of commencing stricture. The flexible bullet sounds should be made of all sizes on the French scale like Otis's metal bulbs, and I regard them and the Otis urethrometer or expanding bulb as most valuable for the measurement and discovery of pathological narrowing of the urethral canal. On this point, therefore, I cannot agree with the sweeping condemnation passed upon them by Sir Henry Thompson in his excellent Clinical Lectures on Diseases of the Urinary Organs. After advocating for diagnosis the employment of a No. 10 or 11 flexible English gum-elastic bougie slightly curved towards the point with a blunt end (since a tapering point of course will not mark distinctly the site of the stricture), he shows that a stricture will be detected by the bougie "being grasped somewhat as it is withdrawn." He then passes this judgment on the bougie à boule. "Now, with the common exploring instrument, which is formed of a long small flexible bougie, terminated by a bulb of considerable size, nothing is more easy, especially with an unpractised hand, to deceive oneself with respect to the existence of stricture. If not drawn out accurately in the axis of the passage you may feel a check, and readily find what you believe to be a stricture in the most healthy urethra. And that is precisely what I am so anxious to guard you against, for in the hands of designing persons these instruments may be turned to most unworthy purpose. For men outside the ranks of our profession, or holding a questionable position on its outskirts, these instruments are the very things. That is an additional reason why we should be careful not to encourage their unnecessary use. I have for twenty years past used small bulbous instruments in metal for the diagnosis of narrow and confirmed stricture on which it is desirable to operate, but for slight stricture never; and I have protested against their use on the two grounds already named: first, that for such the instrument inflicts needless pain; secondly, that it is liable to deceive a young operator not too adroit or familiar with its use." Neither can I agree even with Mr. Harrison, who thinks that the best instrument for exploration is "the plain bougie, with the end slightly rounded (not bulbous) to facilitate its introduction. If a surgeon cannot by this obtain all the information he requires about the urethra, I am sure," he says, "he will not be assisted by any of the bulb or olive-headed instruments which are vaunted for this purpose. It is a matter of touch and of handling. What is wanted is the *tactus eruditus*, the acquisition of which requires as much practice as is needed to detect fluctuation. To the unpractised hand the whole length of the urethra is a stricture, which no form of instrument renders otherwise." Most unquestionably a practised hand will detect by an educated touch far more than a beginner even with an ordinary sound or catheter; but the practised hand will discover more with a suitable than an unsuitable instrument. And, as regards the bullet sounds, I cannot do better than quote the teaching of a former colleague of Sir Henry Thompson's, who is on the Court of Examiners at the College of Surgeons, and will not therefore, I presume, be regarded either as a designing person, or as outside the ranks of the profession, or holding a questionable position on its outskirts. In November, 1879, in some excellent lectures on stricture of the urethra, published in the *British Medical Journal*, Mr. Berkeley Hill took a view of the comparative diagnostic value of the bougie à boule diametrically opposed to that of Sir Henry Thompson. He then said "the size and shape of the instruments employed in the examination of the urethra are of great importance; indeed, unless you provide yourself with suitable instruments, you will not gain any precise knowledge of the condition of the urethra you are asked to treat, and will probably bungle in your treatment. Bullet sounds with slender stems (sondes à boule), some flexible, some rigid, are requisite in addition to the urethrometer. In searching for stricture I discard instruments with tapering points or of equal calibre throughout—the ordinary so-called French and English bougies or sounds; they are deceptive in several ways. For example, an instrument of which the stem and point are of equal thickness is gripped the whole time it is passing through the stricture, and the presence of other non-expanding points behind the first, notified by the sound, is not perceptible, unless indeed they be narrower than the first, when they stop the further progress of the instrument." With these remarks I fully coincide, and can only add that the fact that a valuable and necessary instrument may be abused is no argument against its legitimate use. If it were, the female speculum, the laryngoscope, and even the clinical thermometer would have to be discarded. As to the disagreement of surgeons in their estimates of surgical procedures and instruments you need not be surprised or troubled, for we constantly find that even within a brief space of time a surgeon will disagreewith himself.

THE INFREQUENCY OF CANCER AMONG FEMALES IN THE ENGLISH LAKE DISTRICT.

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AT a time of the year when the facilities for enjoying one of the most beautiful and interesting districts in England are yet in full career, the readers of THE LANCET may not think inopportune the following notes, made during a recent visit to Kendal, with the view of supplementing my remarks published last year in that journal on some of the causes coincident with the low mortality from cancer among females in the Lake District.[1] As the copies of THE LANCET containing the articles referred to may not be at hand, it will perhaps be well to give a brief summary of the facts connected with the distribution of this disease in Great Britain.

In 1868, in a paper read before the Medical Society of London, illustrated by a large coloured map, I first demonstrated that cancer among females had a well-defined geographical distribution throughout England and Wales, and that when the cancer map was studied in connexion with a geological map of this country the following disease

[1] The Geographical Distribution of Cancerous Disease in the British Isles. THE LANCET, vol. i. 1888, pp. 314, 365, 412, and 465.

and geological facts were coincident:—(1) That among the 630 registration districts into which England and Wales are divided, those low-lying districts which were either traversed by, or were contiguous to, fully formed rivers that seasonally flooded the country through which they flow were characterised by the *highest* mortality from this cause of death. (2) That, on the other hand, those districts which had the *lowest* mortality had a high average level, were situated on or near the water-partings where rivers derived their sources, and where the rock-base under their soils consisted of the older geological formations, such as the Cambrian, Silurian, old red sandstone, and mountain limestone, or of the more recent chalk, and where floods were either impossible or only temporary.

Such were the simple facts which I announced nearly twenty-one years ago, based upon the deaths that took place from cancer among females during the ten years 1851–60. Since then I have added the facts which the succeeding ten years (1861–70) have afforded me, gathered from the late lamented Dr. William Farr's second decennial supplement to the late Major Graham's (Registrar-General) thirty-fifth annual report. Owing, however, to the supplement for the last decennial period (1871–80) being defective, the present Registrar-General having incontinently and confusedly mixed up the male with the female deaths, further addition to my twenty years' facts is impossible until this report is amended and published in the form established by Dr. Farr. This defective report is fully discussed in the articles in THE LANCET already mentioned, to which I must refer the reader, only adding that the defects in this perfunctory report have been brought to the notice of the Government, and it is hoped that before long the work will be placed in competent hands, and reissued in accordance with Dr. Farr's models.

The facts of the second decennial period (1861–70) confirming in every respect those which I announced in 1868, and have just briefly repeated, the question then arose, How did river floods affect the local climates of those districts wherein for twenty years cancer proved itself most deadly? In the first place, it was discovered that in some oft-flooded river valleys, such as that of the Thames, remarkable exceptions were to be found—namely, that in four of the riparial districts of this river a comparatively low mortality from cancer among females obtained; two of these districts, Wycombe and Cookham, were above London, and two below, Orsett and Dartford. These districts were found in pairs, one lying on the right and the other on the left bank of the Thames, and separated only by the river. Coincident with the low mortality of these two pairs of districts was the fact that at both these points in the river's course chalk came to the surface and formed the rock base of the soil of these four riparial districts, whilst underlying the gravel and alluvium of all the high-mortality riparial districts were the Oxford clay, the Kimmeridge clay, Gault clay, plastic clay, and London clay, all retentive strata, and calculated, as will be presently seen, to intensify the evils of floods and their sequels—dead vegetation and vegetable decomposition,—resulting in the formation of numerous gases and acids, which not only render the soil sour, but injuriously affect the atmosphere that lies above it, and therefore the local climate of the district where floods occur, and far beyond their high-water mark. It is a well-known fact that by the retention of the acid products of vegetable decomposition consequent on river floods the superficial soil is rendered sour, and the subsequent herbage rank and deleterious, especially to young cattle and sheep. It is also well known that the grass which covers the soil overlying chalk or limestone is sweet, even when these rocks are covered to a considerable depth by sands and gravels, whether of post-glacial or of recent fluviable origin; whereas, when the chalk or limestone underlies a considerable deposit of boulder clay or recent alluvial clay, their neutralising powers are barred from taking effect by the intervening obstructing layer of retentive soil.

It has been shown in my work on the Geographical Distribution of Heart Disease,[2] and in my more recent lecture on the Distribution of the Wheat-yield in Great Britain,[3] how the configuration of the country influences the free access of the prevailing winds; how when access from the sea is aided by the direction of the trend of the valley systems coinciding with that of the atmospheric currents; and how it is obstructed when the river valleys are at right angles to them, in the latter case causing them to blow over instead of up through them, as in the former system. In England and Wales the prevailing winds are either south-westerly or north-easterly. In the case of free and unobstructed access, the valleys are swept clean of all residual air, and are thus purged of atmospheres contaminated either by emanations from the soil or human habitations. On the other hand, when free access is barred, and the winds are forced over the water-partings, all that is deleterious in the atmospheres in the valleys below is rendered still more deleterious by accumulation; hence it is that in such pent-up stuffy valleys the local climates not only engender diseases, but intensify those that are imported into them. Two thousand five hundred years ago Hippocrates pointed out the different effects on health experienced in "stuffy hollows and in fresh uplands." Knowing these facts, it will not be difficult to understand why, in the case of cancer among females, we find those districts where the soil favours the intensification of the evils of floods varying in their death-rates from this cause, according to the configuration of the land in which they lie; in fact, why the more pent-up inland districts should have a higher death-rate, as a rule, than the more open ones, exposed to the free access of the winds and their air-flushings and oxidising properties. With this introduction I will now give a brief account of my late investigations in the English lake district.

At the International Geological Congress held in London in September, 1888, I pointed out to the members the fact above narrated with regard to the coincidence of low mortality in the Thames valley with out-crops of chalk in the districts where it occurred. That the vegetable acids, the result of vegetable decomposition after floods, were neutralised by the chalk I have not the slightest doubt; neither had those around me who were at the time looking across the Thames at the chalk at Purfleet, in the Orsett district, whilst standing on the chalk of the Dartford district, and admiring the chalk flowers that bloomed around us. The soft nature of the rock precluded the permanence of the effects of acid erosion on its surface. Moreover, the permeability of chalk allowed the rain to enter its structure rather than run over it laden with the acids, and etching channels as it flowed. In the harder limestone, however, the acids leave permanent records behind of their having been neutralised by the carbonate of lime.

Whilst visiting Kendal this year, with the view of comparing the limestone of the southern Lake District with that in the Isle of Man, and of studying the relation of these rocks to the fully-formed rivers of this district, through the courtesy of the honorary secretary of the Westmorland Natural History Society, Mr. Severs, I made part of an excursion to the limestone escarpment of Lyth Fell, where are to be seen on a gigantic scale the records of vegetable decomposition and vegetable acid etching of the tilted limestone slabs, on which the dead leaves of the shrubs and trees of the wood had fallen and decayed. The limestone dips at an angle varying from 5° to 20° towards the east, and forms a bold escarpment looking towards the west. The joints are all enlarged by "weathering" and the erosion of the vegetable acids, so that they are often dangerously deep, and remind one of the Chasms in the Isle of Man; the surfaces of the tilted slabs are carved into long, deep, and tortuous watercourses. The upper margins of the slabs are entire, but the lower are eaten through, forming, in fact, the outlets or mouths of the strangely serpentine channels. In each channel lies dead and dying vegetable matter, creating fresh acids for the next rain to wash out of its mass and thus enlarge and deepen the channel in which the mass rests, which in many places completely covers the stone. This "weathering," as it is termed, has been ascribed to rain alone, which, by means of the carbonic acid it contains, is said to dissolve the carbonate of lime by converting it into the soluble bicarbonate; but anyone who at a glance can see scores of acres of tilted slabs all sculptured into serpentine channels as I have described, and these channels filled with decaying acid vegetation, will not find it difficult to understand that the rain finds powerful allies in the sour masses on which it falls in its work of erosion, nor will he hesitate to accept the evidence before him of the power of neutralising the acid products of vegetable decomposition in carbonate of lime in the form either of limestone or of chalk. These limestones have been described

[2] The Geographical Distribution of Heart Disease, Cancer, and Phthisis. Folio. Smith, Elder, and Co., 1875.

[3] "The Farmer," 1886; "Bell's Weekly Messenger," ib.; and "The Mark Lane Express," ib.

by Mr. A. Strahan in his memoir on the Geology around Kendal. "In the Kendal area," he says, "they dip to the east, and present an unusually precipitous and continuous face to the west; on the east they are cut off by a fault. This limestone forms the most northerly projection from a much-faulted range of carboniferous rocks, which fringes the Lake District on its south side." In fact, at and below Kendal as far as Duddon Mouth they underlie the superficial and permeable sands and gravels traversed by all the rivers that fall into Morecambe Bay. Again, on looking at a geological map of this part of England, it will be found that these limestone rocks are continued on the north-east of Kendal at Orton, whence, as the same author remarks, they form part of a prolonged escarpment of these rocks, which fringes the Lake District on its north and east sides. These limestones form a crescentic belt around the Lake District, which can be traced from Duddon Mouth through Kendal, and through outliers at Skelsmergh and Gray Rigg to Orton, whence it continues in an unbroken line onward by the north to the Whitehaven district. I must, however, remind the reader that whilst in the south, below Kendal, this limestone crescent underlies those parts of the rivers where floods may most frequently occur, and therefore where its influence would be most required, along the remainder of its course by the east and north to Whitehaven it crosses the higher parts of the many rivers which radiate from the central water-parting of the Lake District, consequently where floods are either impossible or rare. These facts should be remembered when the statistics of cancer among females are discussed. The distribution throughout Great Britain of phthisis being so markedly the reverse of that of cancer, it is always instructive to study the two causes of deaths together whenever possible.

The English Lake District.—The seven registration districts that constitute the English Lake District belong to three different counties: (1) Cumberland, including Penrith, which may be said to share Ulleswater with Westmoreland; Cockermouth, in which are Thirlemere, Derwentwater, and Bassenthwaite; Buttermere, Crummock, and Lowes Waters; Whitehaven with Ennerdale, and Bootle with Wastwater. Two belong to (2) Westmoreland West Ward, sharing Ulleswater with Penrith, and containing also Haweswater and Brotherswater; and Kendal, which includes Kentmere, Windermere, and Grasmere. One district belongs (3) to Lancashire — Ulverston, — which includes Coniston-water, and may be said to share Windermere with Kendal. All these lakes average a level of 326 feet above the Ordnance datum.

The Distribution of Cancer and Phthisis in the Lake District compared.—In 1868, in a paper read before the Medical Society of London, I first pointed out the significant fact that throughout England and Wales the distribution of these two diseases greatly differed from each other; so much so, in fact, that the *high* mortality districts in one map were, as a rule, represented by *low* mortality in the other, and that when low mortality from these two causes of death were coincident, the districts were found to be the healthiest, as indicated by their death-rates from "all causes." In 1887, in a lecture delivered at the Edinburgh School of Medicine, embodying the results of recent investigations throughout Scotland, I showed that these diseases had a similar distribution in North Britain. With regard to the Lake District, I have shown that throughout the twenty years 1851–1870 it had a low mortality from cancer among females as the rule. In Great Britain the districts having the highest death-rates from phthisis are invariably those that are most exposed to the full force of prevailing winds, which I have explained in my work on "The Distribution of Heart Disease, Cancer, and Phthisis," and again in the one on "Scarborough." We shall therefore be prepared to find that the most exposed lake districts have a higher death-rate from this cause than the more protected ones. Thus the exposed lake districts are Cockermouth (28·53), Whitehaven (26·54), Bootle (35·88), Ulverston (28·61); the mean annual death-rate from phthisis to every 10,000 females living being 28·61. On the other hand, the sheltered lake districts have a less though still high death-rate: thus, Penrith (26·71), West Ward (25·95), Kendal (28·07), mean, 26·91. When, however, we take the cancer death-rates a great difference is seen. Taking the districts in the same order, the annual death-rates from cancer among females are as follows:—The coastal: Cockermouth (4·58), Whitehaven (2·93), Bootle (3·23), Ulverston (2·88), mean 3·40. Inland: Penrith (5·11), West Ward (4·67), Kendal (3·12), mean 4·30. If we take the mean cancer and phthisis death-rates among females for the seven lake districts during the twenty years 1851-70, we find the following—cancer 3·80, and phthisis 28·38, the latter very high and the former very low, but strictly in accordance with the rule stated above. Again the coastal lake districts have a mean death-rate for cancer of 3·40, and phthisis 29·49, the former below and the latter above the lake standard. Whilst in the inland districts the reverse obtains: the cancer death-rate, although low when compared with that of England and Wales for the same period (4·78), is higher than the local standard (3·80), amounting as it does to 4·30. This, too, is in perfect harmony with what I have taught prevails throughout Great Britain. Of the inland districts Kendal (3·12) was the lowest cancer death-rate, and this agrees with its double character, for, independently of its geological features, which are all in favour of a low cancer death-rate, an important section of its population (55 per cent.) is exposed to the full influence of the prevailing winds from Morecambe Bay, which thoroughly air-flush the lower valley of the Ken and thus keep its local climate free from stagnation and the consequent accumulation of injurious emanations from the soil. Coincident with this free exposure of the lower valley to the full force of the winds from the sea, we find that, whilst it has the lowest death-rate from cancer, it has the highest from phthisis amongst the inland lake districts.

The Increase of Cancer.—In 1886 I read a paper before the Collective Investigation Committee appointed in accordance with the suggestion of the Berlin Medical Congress with the view of reporting upon my works on the distribution of disease, in which I drew attention to the fact that, whilst undoubtedly cancer was increasing and phthisis decreasing in this country, the latter disease had been found to be increasing in some districts where cancer was actually decreasing. In the Lake District cancer has increased very little indeed among females. In the north Lake District it has actually decreased, the death-rate in 1851–1860 being 4·15, whilst in 1861–70 it only amounted to 3·99. In the south Lake District in 1851–60 it was 2·75, but in 1861–70 it rose to 3·63; whilst for the whole of the Lake District the rates were 3·52 for 1851–60, and 3·82 for 1861–70. During the same periods the districts of Cumberland and Westmoreland outside the lakes had a mean death-rate in 1851–60 of 3·63, whilst in 1861–70 it amounted to 5·58. It may therefore be said that, among the female population living within the influence of the English lakes, cancer during the twenty years 1851–70 pursued a steady low course, whilst generally throughout England and Wales it had been increasing in its ravages, and that this increase was evident even in the districts immediately outside the lakes.

There is yet a more certain and useful test of the accuracy of the above statement—namely, the elimination from the mean female populations and the deaths of cancer occurring among them of all women above thirty-five years of age, and of the deaths that took place at and above that age during the twenty years 1851–1870. During those twenty years the mean female population in the Lake District amounted "at all ages" to 98,880, amongst whom 729 died of cancer. At the same time there was a mean population of women living, amounting to 30,757, at and above thirty-five years of age, of whom 693 fell victims to cancer, so that over 95 per cent. (96·06) of the deaths from this cause among females occurred at and above thirty-five years of age.

Now, if we take the annual death-rate from cancer to every 10,000 women living at the above age-period, we shall find that, whilst in England and Wales it amounted to 14·31, in the Lake District it reached only 11·50, equal to an annual saving of 2·81 to every 10,000, which, in round numbers, among the 30,000 women, would equal a saving of 170 lives during the twenty years. In other words, the death-rate in the Lake District being 11·50 instead of 14·31, nearly 20 per cent. (19·63) of valuable lives are saved from succumbing to this terrible cause of death.

When it is proved that a fell disease like cancer claims victims in every district of South and every county of North Britain at an increasing rate, and whilst the natural history of such a long-torturing cause of death is still quite unknown, it is a gain at least to discover where certain conditions of soil and local climate exist that are proved to be coincident from one end of this country to the other, with its least power to torture and destroy; it is satisfactory also

to know that the conditions favourable to the lowest form of mortality from cancer are well defined, of certain character, and admit of a simple description and an explanation which appeals to the understanding and common sense of all. To know where those should go or be sent who are threatened with this disease, with the best chance of arresting its development, is a gain in preventive medicine; and it is a relief to know that the most beautiful part of our country—the English lakes—not only possess the conditions of soil and climate found to be the least conducive to the growth of this disease, but that these conditions have during the twenty years taken been effective in keeping it at bay, whilst in other parts, and closely around, cancer has been gaining ground.

I first studied the physical configuration of the Lake District in relation to local climate and disease distribution from Windermere, where every facility for investigating the northern Lake District is at hand during the season. During my last investigation I selected Kendal as the centre, and found it an admirable station, the neighbourhood being full of interest for the naturalist, the archæologist, the geologist, and the medical geographer. The beautiful drive from Kendal over the Windermere Ferry at Bowness, by Esthwaite, Tarn Hawes, through Hawkshead to Coniston-water, and back by Ambleside, Windermere, and Staveley, will give the student a better idea how local climates are formed, and how much they are dependent upon the geological structure and physical configuration of the district, than any written description, especially if he make on his way graphic notes in his sketch-book. From Kendal, too, the limestone country around the rivers which flow into Morecambe Bay can well be studied, as well as the superficial drift deposits, forming *drumlins* of sand and gravel over 300 feet high sometimes, as the Castle Hill. The "Concangium" at Water Crook, south of the town, is highly interesting to the visitor, and has much to tell the medical geographer. This old Roman Castrum, the flocks of gulls that fly around and feed in the river around it, and even the stormy petrels found sometimes in the streets of Kendal, are all regarded with interest by those who study local climates with the view of tracing their connexion with local flora and local diseases.

NEW ANTISEPTIC ARTIFICIAL TYMPANIC MEMBRANE.

By JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SENIOR SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL AND TO THE PORTSMOUTH AND SOUTH HANTS EYE AND EAR INFIRMARY.

THE essential qualities of a good artificial drumhead are numerous. 1. It must, first of all, decidedly improve the hearing power. 2. It must be so constructed that it can be easily placed in the right position and easily removed; it ought also to be especially adapted for self-application. 3. It must be extremely light and delicate in structure, so that it causes no sensation or irritation in the meatus by its presence. 4. The artificial drumhead ought also to be an efficient protector to the injured organ, and a screen for maintaining the moisture of the exposed tympanic cavity. 5. It should be capable of fitting the varying capacity of the external meatus, so that, when once placed in position, it is not liable to displacement. 6. It ought to be a convenient vehicle for the application of local astringent and deodorising remedies. 7. The contrivance should be obtainable at a trifling cost, so that a new artificial membrane may be used as often as necessary.

The new membrane which I desire to submit to the criticism of my professional brethren is represented in Fig. 1. In shape it is exactly like a hat with a very high and tapering crown and a broad and flat brim, having a short ribbon attached to the edge. It is just firm enough in substance to retain its shape in the ear, and yet the material is so soft and flexible that it causes no sensation by its presence. It is stained a delicate flesh colour, and is made in several sizes to suit the varying capacity of the external meatus. When in position the crown rests near the tympanic membrane, the brim upon the meatal wall, and the little ribbon or handle behind the tragus. The method of manufacture has been worked out by a series of experiments. The material is composed of compressed cotton fibre, swollen by prolonged immersion, and saturated in an antiseptic oil and ether. The soft material is then firmly compressed in a little machine that I have designed for the purpose, and afterwards dried by artificial heat.

One marked feature of the new antiseptic membrane is its extreme lightness. The weight varies a little according

FIG. 1.

to the size, and this has a range from one-sixth to one-quarter of a grain. I have often introduced it without the patient being aware that anything had been put into the meatus.

Another special quality consists in the facility with which it can be introduced and removed by the patient himself. The little instrument for the self-application of the artificial membrane is depicted in Fig. 2. The probe end is

FIG. 2.

inserted into the crown of my little hat, and in this way it can be accurately placed in the meatus, and then detached from the instrument by the aid of the sliding collar. Patients very soon get into the way of adjusting it and slipping it into position, with just the right amount of pressure for securing the best result. The forceps is intended to be used for the removal of the artificial membrane, and in doing this patients are guided by their tactile sensibility. Traction is made upon the handle, which ought always to be easily found resting just behind the tragus.

It is a matter of great practical importance in every case that the artificial membrane should be selected to suit the shape and capacity of the external ear. It is my practice to regulate the height of the crown by the sensations of the patient and the breadth of the brim by the size of the meatus. It must not fit too tightly, but simply rest in contact with the meatal wall, so that after it has been put into the right position it does not get easily displaced. It is not necessary to place the crown upon the perforation or in contact with the remnants of the tympanic membrane. The surgeon cannot select the point of contact by any internal scrutiny of the organ; but, in every case he must be guided by the sensations of the patient and the improvement produced in the hearing power.

The artificial drumhead may be regarded also as an ear protector and a local antiseptic remedy. I have recently made some impregnated with the oils of eucalyptus globulus and pumiline pine in combination with other aromatic substances, and their agreeable fragrance renders them extremely grateful to some patients, especially those who have suffered from offensive discharge. Other patients with perforation of the tympanic membrane, but without serious deafness, have used them as ear protectors with great comfort. In such cases the artificial membrane forms a screen between the middle ear and the external meatus, and acts as an efficient shield during rough and cold weather.

With reference to the length of time an artificial membrane can be retained in the ear, I recommend a fresh one to be introduced every day, and of course this is absolutely necessary in all cases of otorrhœa. It should be taken out

during the night, and put in directly after the local treatment is finished in the morning. Some patients make one of the drumheads do for two or three days. A medical friend, who has been using my little hat for several months, informs me that he has often kept one in his ear for a week without removing it. Of course this is a detail which must vary in different cases, and patients soon learn to arrange it for themselves.

The antiseptic artificial membrane does not require to be moistened before introduction. If the passage is dry, it should be wiped out with a weak solution of boracic acid or any deodorising lotion. On two occasions only patients have complained of some temporary irritation from its presence in the meatus. One was a case of gouty eczema of the auricle, and in the other the external ear was particularly tender and irritable from chronic inflammation. Under these circumstances a morsel of lanoline containing cocaine can be used with great relief just before the introduction of the artificial drumhead, and I always direct that the membrane should only be retained for a few hours at a time until the sensibility of the meatus has subsided.

The new antiseptic artificial membrane and aural probe can be obtained from Messrs. Burroughs, Wellcome, and Co., Snow-hill Buildings, E.C., at a very trifling cost.

Southsea.

HAIR PASSED IN THE URINE.

BY WILLIAM O'NEILL, M.D., M.R.C.P. LOND.,
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ON May 5th. 1887, I was consulted by Mr. A—— for disease of the bladder, one very remarkable feature of the complaint being that he passed hair in the urine. The patient was fifty years of age, rather short and stout, and regular and temperate in his habits. Twelve months before he called upon me he began to suffer from irritability of the bladder; three months after this he noticed blood in his urine; and about five months subsequently to the hæmorrhage he discovered hairs in that fluid. The hairs at the outset were single and not very numerous; but as time went on they increased in number, and some of them formed little tufts. The patient sometimes felt a sense of weight and uneasiness in the region of the bladder, but he did not seem to have suffered much pain, excepting occasionally when in the acts of micturition the flow of urine was interrupted by clots of blood. The hæmorrhage from its commencement recurred every five or six weeks, but the bleeding was not very profuse at any time. In the attack preceding his calling upon me, he thought, however, that he had lost more blood than on any other previous occasion; nevertheless, he was still a ruddy-faced, healthy-looking man. He had declined in weight, but this he accounted for by recently defective appetite, and from being frequently disturbed in the night by the irritability of the bladder. The patient's urine was abundant, averaging about four quarts a day, but then he indulged in copious draughts of milk, to which he was rather partial. The specific gravity of the urine ranged from eight to ten degrees; the reaction of the urine inclined to alkalinity, and when free from blood it contained merely a trace of albumen, but no renal casts, mucus, or pus. Floating in the urine, or lying on the bottom of the chamber-vessel, now and again could be seen particles of matter which the patient called "skins," and which to my unassisted eye looked like little bits of coagulated albumen or fibrin stained more or less with blood. Also in the urine at all times could be seen hairs, more or less numerous, of various shades of dark and light colour, and varying in length from half an inch to two inches and a half, and I have seen a few hairs not less than four or five inches in length, which he assured me he had drawn out of the urethra. On looking at some of the ordinary hairs that I chanced to have preserved, I find the majority of them are light in colour, and that the thick and thin ends are well marked, even in the most downy specimens. When the urine contained blood, the hairs assisted in forming little clots, which the patient had sometimes difficulty in voiding; indeed, it was this fact that first drew his attention to the hair. As might be supposed, some specimens of urine contained more hair than others. On one occasion I fished out of a chamber-vessel not quite full of urine a small ball of hair. The patient, who was a clever man, frequently looked at the hairs through a microscope, and was familiar with their appearances and peculiarities. I have had the urine microscopically examined by two young medical men, who in addition to the hair only found some blood-corpuscles, epithelial scales, and on one occasion pus-cells. To prevent any extraneous matter finding its way into the urine I ordered the chamber-vessels to be always washed with pure water before the patient passed urine into them, and to be kept closely covered till examination took place. In the carrying out of these commands it was not an uncommon thing to see a row of six or eight vessels arranged along the wall of the patient's bedroom; the arrangement frequently excited a little mirth in some of his relatives, who could not see any use for "such a display of crockery."

I may say that with the exception of the bladder complaint Mr. A—— considered himself in fairly good health. His pulse was regular, his heart and lungs were sound, and there was little or no increase of temperature. On account of the hæmaturia he was ordered gallic acid and hamamelis virginica, and when the hæmorrhage was subdued he took nitric acid, buchu, uva ursi, and strychnine. In this way he went on slightly improving until the sultry weather of August, when he was attacked by most violent diarrhœa and vomiting, and whilst in this state he was suddenly seized with apoplexy, which carried him off in a day or two. I was told that the patient's family is peculiarly susceptible to bowel affections, which in its members generally assume a grave character, for two of his sisters and a brother had died of intestinal diseases of some kind.

In the absence of a post-mortem examination, it is impossible to say what the state of the bladder was that gave origin and growth to the hair which constantly appeared in the patient's urine. It may have been that the hæmorrhage, the hair, and the so-called "skins" came from the same diseased surface, or from a tumour of some sort in the bladder. I have an impression that the blood proceeded from a villous or papillomatous tumour, and that the hairs grew on the mucous membrane, from which they were constantly shed. Hair passed in the urine must be a very rare phenomenon for, on referring to Dr. Neale's "Digest," that valuable work gives only two examples of it—one published in THE LANCET in the year 1860, and the other in the *British and Foreign Medico-Chirurgical Review* for 1874. I regret that on neither of these papers am I able to lay my hands. Infrequent as the disease is, it has been heard of by some of the vendors of quack nostrums. Before I had seen the patient, he had been taking for several months a mixture which an accompanying advertisement stated would cure many and various maladies, and among the rest the disease which caused hairs to grow in the bladder.

Lincoln.

ON THE PATHOLOGY OF RENAL DROPSY.

BY A. G. AULD, M.D.

THE pathology of dropsy, and of renal dropsy in particular, has excited considerable interest and discussion since the experimental inquiry which is chiefly associated with the name of Cohnheim.[1]

With respect to the œdema of hydræmia, Cohnheim, and with him Lichtheim, found in their experiments that a simple hydræmia or even hydræmic plethora was insufficient for its production. It was necessary that a change in the capillary wall of a paralytic nature be superadded, tending in all probability to cause a loosening of the attachments of the endothelial cells of which it is composed. In one experiment, Cohnheim and Lichtheim ligatured the iliac vein of a dog, yet this was not followed by œdema of the corresponding limb. Ranvier repeated the experiment, and in addition divided portions of the sciatic nerve. It was found that while section of the motor fibres of the nerve gave negative results, section of the vaso-motor fibres was followed by œdema of the limb. Salvioli obtained similar effects in dogs rendered artificially hydræmic. With respect also to the lymphatics, it is found that their complete occlusion is, at least for a time, un-

1 Virchow's Archiv, vol. lxix., p. 106: "Ueber Hydrämie und Hydrämisches Œdem."

attended by œdema of the pertaining parts. In another experiment Cohnheim depleted a dog, and injected salt solution till hydræmic plethora ensued. The result was a great increase of the natural secretions—e.g., saliva, bile, urine, and intestinal fluid; but not until the hydræmic plethora was of the most extreme kind was any dropsy manifested, and then in the form of ascites only. Not only so, but Fleischer,[2] after tying the ureters and adding urea to the injected liquid, failed to obtain anasarca, nor was the blood pressure permanently raised.

On the strength of these and such-like experiments, Cohnheim came to the conclusion that dropsy occurring in the human subject was caused, not so much by a hydræmia or hydræmic plethora, as by a morbid alteration in the walls of the capillaries favourable to an increased transudation of their fluid contents. This alteration he considered to be due to the direct action of a particular poison existing in the blood, the nature of which is problematical, but defined by some in the case of renal dropsy as the same specific agent which affects the kidney. It is, however, suggested by Brunton[3] that it may be sarco-lactic acid, which, in conditions of imperfect oxygenation, may be formed instead of carbonic acid, he and Cash having discovered that the addition of dilute acids to the blood not only causes increased permeability of the vessels, as observed by Gaskell, but also œdema of the surrounding tissues. In reference to this question, it may be said that, apart from inflammatory conditions, there is but scant evidence to maintain the proposition that the existence, and even the prolonged existence, of a poison in the blood has any direct influence in the production of dropsy. Were it so, this symptom would be much more frequent, and at the same time much less significant, than it really is. Quite an exceptional instance, however, is found in the case of arsenic, which causes an œdema of obscure origin said by Feitelberg[4] to be the outcome of defective oxygenation. It could hardly be justifiable to adduce the malignant œdema of Koch in this connexion, which is due to the action of a bacillus, though Bienstock,[5] indeed, states that a somewhat similar organism can be cultivated from the fæces of man. On the other hand, there can be no doubt whatever that there are poisonous substances which by reason of their deleterious action on the blood act as remote causes in the production of dropsy. This is well illustrated in the case of the œdema of chlorosis, there being every reason to believe that this cachexia is intimately related to the absorption of ptomaines and leucomaines from the stomach and intestinal tract, as declared both on pathological and clinical grounds by Bouchard, Duclos, Sir Andrew Clark,[6] and others.

Again, with respect to the locality of the œdema, it is found in disease, and especially in renal disease, that hydræmic plethora is chiefly associated with symptoms the very reverse of those occurring in Cohnheim's experiment—with œdema, namely, of the skin and superficial tissues of the body, and with a diminution of the natural secretions and excretions. Pathologists have been much troubled over this very decided though instructive contrast, for the explanation of which various opinions have been advanced. Cohnheim himself supposed the skin in renal disease to be in a morbid state, its vessels debilitated, and more susceptible to the action of the poisonous agent which he believed to exist—a condition which, indeed, demonstrably obtains in the case of scarlatinal dropsy. Coats,[7] commenting on this, imagines that a special vulnerability of the skin, is, from its physiological relationship, to be apprehended in kidney disease, and he further considers it probable that it is injured by the same irritant which attacks the kidney. Hamilton,[8] in his search for an explanation, goes almost the length of contradicting himself. He believes the œdema to be induced by a long-continued stretching of the skin, for the production of which there was not sufficient time in the experiments on dogs, and yet elsewhere he states truly that the superficial œdema commences where the tissues are very lax. The most striking negation to the theory that the œdema of the skin is owing to a special participation of this texture in the disease is that afforded by the similarly distributed œdema which results from retention of urine, independently of any renal disease. This curious phenomenon has been particularly investigated and described by Trousseau.[9] Its symptoms consist in an enormous distension of the bladder, with frequent or continuous dribbling of healthy urine and anasarca. Trousseau imagines that a flow of urine may take place backwards by the ureters into the kidneys, distending these organs and impeding their functions. It has suggested itself to me that part of the urine may be absorbed by the distended bladder; but, anyhow, the fact remains that the anasarca is unattended by any disease of the kidney.

The very fact that the results of experiment on healthy animals bring into such bold relief the results of disease in the human subject suggests the greatest caution in dealing with them as standards of reference in pathological questions. Such ingenious theories as those referred to, which have been constructed to reconcile the dissimilar phenomena, are thus *a fortiori* liable to be impeached as tending only to obscure the light which these experiments convey. And such truly I believe to be in great measure the case. When critically examined, the chief value of these experiments seems to consist in their leading to the reflection that disease does not shoot out its phenomena in an hour or two, but that it works long and often silently, is recondite in its nature, complex in its affinities, and usually fertile in its resources; that is to say, they indicate that in the elucidation of the phenomena of disease it is necessary to look deeper and more antecedent. And with respect to renal dropsy, I think there can be little doubt that its chief vital predisponent is that condition of the blood to which the term "anæmia" is conveniently applied. Clinical experience confirms this. "How is it," says Sutton, "that œdema is so prevalent in some cases and not in others? Frequently the renal symptoms—albuminuria, hæmaturia, giddiness, and shortness of breath—have come on, but with no appreciable dropsy. The dropsy is augmented with the increasing loss of red corpuscles, the coloured respiratory organs;[10] and it may be plausibly suggested that to the anæmia of Bright's disease as to chlorosis certain retained products of the organism, or their toxic derivatives, stand in a causal relationship. But, however originated, one of the most palpable facts in connexion with anæmia is failure of the blood adequately to carry on the circulation. Then, when to anæmia an hydræmic plethora is added, the conditions for the production of renal dropsy are fulfilled, whilst its distribution is regulated by physical laws. Consider the condition of matters. The blood, as already stated, is suffering intrinsically in progressive deterioration of its vital energy, particularly from progressive diminution of its corpuscles, which, by their mutual actions in the normal state, materially assist in the propulsion of the blood stream; it is, moreover, as Hamilton very appropriately insists on, signally impeded in its functions by alteration of its specific gravity. The plasma has become specifically lighter than the red corpuscles, which consequently cease to float with ease in the centre of the stream. Hereby the corpuscles, instead of assisting, only serve to retard the blood current, leading to increase of tension and the pressing out of a greater quantity of fluid than usual. But further than this, the specific gravity of the blood as a whole, from the advancing attenuation of its proteid constituents, is altered relatively to that of the plasma in the surrounding lymph-canalicular system, which will constitute another condition favourable to the transudation of the fluid within the bloodvessels; and such transudation will be rendered still greater by the loss of tonicity which the vessel wall shares in common with the rest of the tissues in this cachexia.

Now, in this hydræmic plethora, with its attendant difficulties of circulation, it is in accordance with dynamical principles that in those parts most remote from the heart—in the periphery of the body, namely—will the impediment be greatest; and, in accordance with the law of gravitation, the most dependent and the most lax of these parts will be specially involved. There the *vis a fronte* is greatest and the circulation is slowest; the venules become over-distended, and are unable to absorb and transmit the lymph which pours forth excessively from the capillaries. Should this state of matters continue, the circulation will fail nearer and nearer to the heart, until the fluid accumulates internally, in the serous cavities, lungs, and other organs, when death is imminent.

On the other hand, with regard to the phenomena which appeared in the subject of Cohnheim's experiment, their

[2] Sitzungsb. d. Physik. Medic. Societät. zu Erlangen, July, 1885.
[3] Pharmacology and Therapeutics, third edition, p. 337.
[4] Quoted by Brunton, ibid., p. 337.
[5] Centralb. f. Med. Wiss., 1883, p. 949.
[6] THE LANCET, vol. ii. 1887, p. 1003.
[7] Manual of Pathology, pp. 55-56.
[8] Text-book of Pathology, vol. i., p. 327 et seq.
[9] Clinical Medicine, vol. v., p. 388.
[10] Medical Pathology, p 167.

explanation may not be so far to seek when it is considered that the blood and internal organs were vigorous and healthy to begin with. A continuous effort would naturally be made by the healthy organism to rid itself of the superabundant fluid by means of the natural channels. This would lead to venous engorgement in and around those organs whose functions were exalted. Such would notably take place in the abdomen where excretion has its seat, and hence the resultant ascites. But in disease these conditions are reversed, and the organism perforce seeks relief through other channels, for the excretory organs are appealed to in vain towards the riddance of a foreign element whose invasion they have been powerless to resist, and under whose yoke they are paralysed.

Glasgow.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE INHALATORY TREATMENT OF PHTHISIS BY MEANS OF SUPERHEATED AIR.

BY ALEX. BOWIE, M.D., M.S.

IN order that the bacilli of tubercle may abundantly flourish, a temperature of 99° is a necessity. If the temperature be lowered to 84° or raised to 107·6° they are rapidly killed, their vitality diminishing as we recede in either direction from their normal point. Such a trivial rise as 3° above the normal temperature is sufficient to markedly retard their developmental energy. With these facts in mind, it is somewhat strange that, until recently, no one should have suggested a method by which diseases of the human being associated with or dependent upon the bacillus of tubercle might be treated by exposing the diseased surface to a temperature necessary for their destruction. The inhalatory treatment of phthisis is as old as Hippocrates, and apparently every conceivable method has been freely used, with the exception of superheated air. We have had fumigations with aromatic and stimulating substances, ranging from sea air to sulphurous waters, from pine cones to elaborated combinations of balsamic herbs. With the birth of chemistry the physical properties of the air received attention, and Henshaw crystallised the thought of the time by erecting, in 1664, his *Domicilium*, where acute chest diseases were treated by condensed, and chronic by rarefied, air. The inhalation of oxygen was followed by treatment with diluted air; and, finally, phthisical patients were recommended to spend a considerable portion of their lives in diving-bells, to obtain the advantage of compressed air. The introduction of sprays of medicated and natural thermal waters marked another advance, but each system fell more or less into disuse from insufficiently satisfactory results. My experience with the inhalation of superheated air has, so far, yielded results of a very favourable nature. The apparatus used was Weigert's, in which the temperature expired by the patient after a few trials may reach from 120° to 140°. The inspired air, according to the thermometer in the tube, may be as hot as 570°, but I do not think the actual inspired air is ever hotter than from 280° to 300°.

In February, 1889, I was consulted by a married man aged twenty-seven, who had been ill since 1885. He had suffered from recurrent attacks of hæmoptysis, and had expectorated as much as thirty ounces of blood in three days. He had cough and profuse muco-purulent expectoration, containing abundance of tubercle bacilli. There were loss of appetite, nausea, and vomiting in the morning, marked wasting of the body, and shortness of breath, with inability to lie down in bed. Both apices gave the physical evidence of phthisis. The first effects of the inhalations were a slight rise in temperature, generally about half a degree, increased rapidity of the pulse rate, and diminished frequency in breathing. These lasted from one to three hours after the inhalation. The cough and expectoration were increased, but showed signs of abatement after four weeks' treatment. His morning nausea and vomiting from the first disappeared, the appetite improved, his rest was less disturbed, and his sleep was more refreshing. His sputum, as it diminished in quantity, contained relatively less of the bacilli. At the present time there is no regular cough, and expectoration is absent. He complains of no shortness of breath; there is an increase of 4lb. in body weight, and the chest girth is believed to be larger. His appetite and digestion are good, he can lie down just as before his illness, and he performs the ordinary work of a shopman without any particular discomfort or consequent exhaustion. There are still present slight consolidation of his left apex, with slightly prolonged expiration, but these have diminished in a continuous line. During the treatment no medicine was prescribed. Cod-liver oil had previously been abandoned on account of gastric intolerance, but this was resumed three months ago, and has always been retained.

Since the improvement in the above case became marked, I have not hesitated to advise the treatment in several others, in each of which improvement in the disease and comfort of the patient have occurred. But the one case is, I believe, a sufficient reason for calling attention to a new and most hopeful means of treating an intractable disease.

Harley-street, W.

COLOTOMY SUCCESSFULLY PERFORMED FOUR DAYS AFTER CHILDBIRTH AND EIGHTEEN OF TOTAL OBSTRUCTION.

BY H. GEARY DYER, L.R.C.P. EDIN., M.R.C.S.

THE following case, which I will report as briefly as possible, is, I think, of sufficient interest for publication.

On April 2nd I was sent for to see Mrs. S——, who was in daily expectation of being confined with her first child. She was then complaining of constant vomiting and constipation, for which I prescribed liq. bismuthi co. and hydrocyanic acid, telling her it was in all probability due to her condition, and that her symptoms would be relieved as soon as she was delivered of her child. I also gave her three grains of calomel for the constipation; but she experienced no relief to either symptom. At 3 A.M. on April 5th I was again called to her, as she was in labour. Nothing unusual occurred in the parturition, except that it was (as might have been anticipated in a primipara of thirty-five) a little lingering; no instrumental aid, however, was required, and the child was born in the ordinary manner at 9.30 A.M. No fæces escaped with the child, though there had been twelve days' total obstruction, and, on examining the rectum, I found it, to my surprise, perfectly empty. I could find no hernia in any of the usual positions for such swelling. On visiting her that night, I found the sickness still proceeding, but not stercoraceous; bowels still confined; temperature 101°; pulse 120; commencing swelling of the abdomen, which was tympanitic. The next morning (April 6th) I administered a warm soap-and-water enema, which, however, brought nothing away. I then introduced a long tube, and gave another enema with turpentine, the result being the same. I saw her again that night, and found the vomiting stercoraceous, the abdominal swelling greatly increased, the temperature 103°, the pulse 130, and the countenance most anxious. The next day (the 7th) Mr. Wyke-Smith, of Wimborne, kindly saw the case with me, and, finding my patient becoming rapidly worse, we administered chloroform and made a thorough rectal examination with hand and forearm introduced. The rectum was perfectly empty. An attempt made to pass the tube into the sigmoid flexure failed. A growth from the sacrum was distinctly felt pressing on the bowel, but there was no evidence of abdominal or uterine tumour. We both agreed that nothing could save the patient's life but operation, and made arrangements for performing this the next day. On visiting her then (April 8th) we found her anxiously looking forward to our arrival, but, although her "pluck" and sound common sense kept her up, her condition was most critical. The abdomen was so enormously distended that the intestine could be clearly mapped out on it; constant stercoraceous vomiting was still going on, and the pulse was so rapid that we could hardly count it. Dr. Batterbury, who had kindly accompanied his partner, Mr. Wyke-Smith, fully coincided with us as to the urgent need of an operation, and entirely agreed with our diagnosis as to a growth from the sacrum, causing obstruction by pressure on the rectum. My assistant, Mr. Hiley, was also present, and rendered me most valuable aid. I need not describe the operation I performed, which was that of left lumbar colo-

tomy. Suffice it to say that I had no difficulty in reaching the bowel, and, after stitching it to the skin in the usual manner and opening it, I was rewarded by witnessing the most enormous escape of semi-fluid fæces that I should imagine can ever have occurred, filling as it did upwards of three chamber vessels. From a temperature of 105° that night and a pulse of 145, both fell to normal within a week. The wound united splendidly. The patient was up in ten days, out of doors in a fortnight, and at the present time frequently walks four and five miles a day. She removes the plug night and morning, and keeps the motions perfectly inodorous with charcoal. There is a strong family tendency to cancer, but, as far as I can make out, there is at present no appreciable increase in the growth.

Ringwood.

ACUTE EPIGASTRIC PAIN IN PREGNANCY ASSOCIATED WITH ALBUMINURIA.

By H. F. BAILEY, M.R.C.S., L.S.A.

THE following case presents so many points of interest that I venture to relate it in detail, trusting it may act as a warning to any brother practitioner who may meet with a similar condition.

The patient, a primipara, aged twenty-seven, was expecting her confinement on or about Feb. 24th. Her friends had noticed that she was unusually "fat" about the face and hands, and she was aware that her feet and ankles were swollen. Her chief complaint was of pain in the epigastrium, and was attributed to indigestion. I saw her on Jan. 23rd, and found œdema of the feet and legs up to the knees, but not well marked; the hands were certainly swollen, and there was puffiness about the eyes and face. She complained bitterly of the great pain at the epigastrium, passing through to the back; this characteristic was very marked later on in the progress of the case. On inquiry, I ascertained that she had partaken of oysters and spiced beef for luncheon, and hence rather acquiesced in the dyspepsia theory; but, on examining the urine, I found a trace of albumen. The pain was not always present; indeed, there would be none for some hours, and she would take a walk; but it invariably returned, and became more intense as time went on, reaching an acme and then declining. There was no desire for food, and her condition was one of absolute misery. The pain was so severe that often she writhed and sobbed with it. She assured me afterwards that the labour pains were nothing compared with those of the epigastrium; she always described them as cutting in character and passing through to the spine. At first I gave the ordinary remedies for dyspepsia, and regulated the diet; but these things entirely failed to relieve her, and all the symptoms became worse. In face of the albumen I did not much like giving opium; but to relieve her I sacrificed my scruples and administered good doses, which utterly failed. By Feb. 8th the sickness had become a marked feature of her case, and the pain was much increased in severity. Her mental condition was one of great depression. I found that the albumen had reached one-eighth. It was now evident I had an unusual and dangerous case to encounter, which might necessitate the induction of labour if eclamptic symptoms supervened. In casting about for guidance, I met with a paper by Dr. John Phillips[1] on this subject, where he draws attention to this rare and serious complication. Mr. Raven more recently has quoted from the same paper, and added a case of his own.[2] While deliberating on my plan of action, to my great relief labour came on prematurely on Feb. 10th. All went well, the os dilating, and the head descending rapidly. Suddenly the patient was seized with general rigidity, the hands taking the attitude of extreme extension, and the fingers being bent backwards. I gave a little chloroform, and delivered rapidly with the forceps. The child was starved and decrepit-looking, but thrived ultimately. The mother did well, all albumen disappearing on the second day. She had absolute immunity from pain after the labour terminated. The only drug of any use was cocaine, which, however, I only discovered to be of service just before labour began.

The above case seems a typical one in its course and symptoms, and for this reason I have felt it right to add it to those already placed on record.

Blackheath, S.E.

[1] THE LANCET, April 2nd, 1887. [2] Ibid., Oct. 13th, 1888.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WEST LONDON HOSPITAL.

FIVE RECENT CASES ILLUSTRATIVE OF CEREBRAL SURGERY; REMARKS.

(Under the care of Mr. C. B. KEETLEY and Drs. DONALD HOOD, J. B. BALL, and COLMAN.)

THIS group of cases, the first of which we give this week, are worth recording, owing to the difficulty which still attends accurate diagnosis and correct judgment in the treatment of cerebral cases. Case 1 illustrates the value of operating mainly with the object of cleansing and asepticising the wound. Without the use of the trephine (or of some substitute such as the chisel and mallet) the bullet track could not possibly have been thoroughly cleansed of bone-splinters, "grime," and the piece of loose bullet found and removed. This case is also one of those extremely rare ones in which recovery, probably permanent (as nearly a year and a half has now passed safely by), with a bullet, or at all events the major part of it, remaining in the cranial cavity. In Case 2 the diagnosis of cerebral abscess may not be absolutely proved, as no pus appeared until three or four days after the trephining. But there are several considerations which point to this pus having come from an abscess opening itself through the trephine hole: (1) Under the microscope the pus cells were found extremely granular, and accompanied by a great deal of granular débris; (2) it came suddenly in comparatively large quantity, and a small stream overflowed from beneath the dressing for a short distance down the neck; (3) the pain in the head, the tenderness of the right orbit, the optic neuritis, and, in fact, the very symptoms which had preceded the operation and led to it, suddenly abated, and the patient was at once convalescent; (4) the suppuration did not continue; (5) the whole of the disc of bone, which had been replanted in small pieces, lived—not one necrosed; (6) the symptoms had so strongly pointed to cerebral, or at all events intra-cranial, abscess. There is a case reported by Sir William Stokes,[1] in which he only missed, "by the twentieth part of an inch," a traumatic subdural abscess "containing fully two and a half or three ounces of healthy, cream-coloured pus"; in fact, just the kind of pus which escaped from my case. Had Sir William Stokes' patient not died the day after operation, it is surely likely that in a few days the abscess would have opened itself, as in this case. It is not unlikely that in Elizabeth W——'s case the abscess was subdural and traumatic, and that each exploratory puncture of the trocar used passed internal to it. Two of the five cases illustrate a method of preserving a button of bone destined for replantation. A small longitudinal incision is made in the skin of the outer side of the thigh (other parts would do very well). With strict antiseptic precautions, including the previous preparation of the part of the thigh selected, the button is pushed through this incision into a subcutaneous pocket, and there retained with an antiseptic sponge or bandage until wanted. It is finally chipped into small pieces with bone forceps over the trephine hole and beneath a sponge. Mr. Keetley wishes to express his great obligations to Dr. Colman for assistance in the management of Case 2. The primary diagnosis was due to that gentleman. Cases 2, 3, and 4 were watched and reported by Dr. Sidney Bontor, Case 5 by Dr. Arkwright, and Case 1 by Dr. S. S. Sprigge. Dr. Percy Lush, as house physician, reported the first part of Case 3.

CASE 1. *Bullet wound of brain: trephining, partial extraction of bullet, drainage, recovery.*—E. H——, aged fourteen, was admitted into the accident ward on March 22nd, 1888. He accidentally shot himself in the left temple with an old

[1] Annals of Surgery, vol. viii., p. 243.

revolver about nine o'clock that evening. The wound ran diagonally from about the centre of the temple backwards, outwards, and a little upwards—i.e., towards the upper part of the left temporal fossa. With the probe metal could be distinctly felt at no great distance from the point of entry. There were no cerebral symptoms, except vomiting.

March 23rd.—The operation was performed at 1.30 A.M. One-fifth of a grain of morphia was administered subcutaneously and chloroform commenced ten minutes afterwards. A horseshoe-shaped flap was turned downwards, exposing the bullet wound in the skull and the bone to the left of it. The track of the bullet was very oblique and towards the left. A small piece of lead was found immediately beneath the periosteum at the opening in the bone. A circle of bone, the size of a shilling, was removed from the left side of the bullet wound, and the first inch of the bullet track thus exposed. It was grimy and contained splinters of bone. It was carefully cleansed. A silver probe found its own way along the track till its point impinged on the inner surface of the cranium in the temporal region. There an irregularity could be felt. A fine pair of bullet forceps was passed down to this, which proved immovable, and was therefore left alone. A fine drainage-tube was passed in (for about four inches and a half), having a double loop of catgut in it. The soft parts of the wound were scraped and cleansed of grime. Iodoform crystals and gauze dressings were applied. The patient vomited frequently during the dressing and several times during the night.

24th.—Sick again this morning. Quite sensible. Bandage relaxed. Morning temperature 99°, evening 101·2°.

25th.—A little headache. No vomiting since noon yesterday. Quiet night. Morning temperature 100°, evening 100·6°.

26th.—Bowels freely opened after enema. No more vomiting. Continues sensible. Temperature normal. Wound dressed in the evening. Not much oozing into dressing. Wound looks well, but there is a little puffiness over the forehead and eyelids. Catgut loop withdrawn from inside the drainage-tube (which was not blocked). Tube drawn out a little and shortened three-quarters of an inch. Same dressing repeated with a small sponge over it. Ice-bag continued. No pain. Morning temperature normal, evening 99·8°.

27th.—No pain. Taking milk and beef-tea freely. Morning temperature 99·8°, evening 99·8°.

April 4th.—Distinct pulsation can be felt over the trephine wound; dressed for the third time and drainage-tube removed. A sponge was strapped over the dressing, the strapping encircling the whole head. Low diet still continued.

16th.—Dressing felt a little uncomfortable. Temperature rose in the evening to 100° for the first time since the second day after operation.

17th.—A drop of atropine having been placed in the left eye preparatory to ophthalmoscopic examination, the patient became angry and much disturbed, probably through misunderstanding and fright, and would not permit anything further to be done.

On the 23rd meat diet was given for the first time, and on the 28th he was discharged.

Remarks by Mr. KEETLEY.—He has been seen many times since both by myself and Dr. Gardner of Mill-hill Park, who attends his family. There of course remains a cutaneous scar and a deficiency in the bone, but otherwise he is well. The operation, including the trephining itself, was done as much with a view to cleansing and asepticising the track as with the hope of extracting the bullet. The result was that, instead of there being left a narrow, dirty, perhaps inflamed and sloughing canal, containing burnt powder and bone splinters, and ending at one extremity in the brain, there was a perfectly clean and aseptic tube of flesh and blood conducting a small soft drainage-tube down the bullet track in the brain, perhaps to its termination. A second point to be noticed is that the patient was kept over a month in bed on milk and beef-tea diet. The importance of keeping such a case quiet and unexcited for a long time is obvious. No one hesitates to keep a case of typhoid fever on prolonged milk diet. This boy was suffering from a condition much more dangerous and incomparably less exhausting than typhoid fever. Next to asepsis the prime indication was to secure quiet, physically and physiologically, and, especially in a healthy boy of fourteen, an unstimulating diet is not only antiphlogistic, but also helps to keep the patient tame and obedient. Where is the part of the bullet (almost the whole of it), and is it likely to cause future mischief? I would first ask—Is it possible for a narrow revolver bullet to pass through the motor centres in the cerebral cortex, or through the subcortical fibres radiating to them, without causing either paralysis or spasms? I should like to hear the opinions of Professors Horsley and Macewen on this point. I myself think it may be possible, but that it is not likely. I therefore think that the bullet in Edward H——'s case lies anterior to the motor area, and that it is lodged near the base of the left middle frontal convolution, I hope partly embedded in the dura mater and frontal bone there, and encysted. If the bullet had not been fixed, would it not before now have gravitated downwards during the day and backwards during the night? Such gravitation should have produced symptoms. Ten months have now passed over in safety. The bullet may by this time have slipped down to the roof of the orbit, and there become fixed and harmless. But if it continues to move backwards and downwards, sooner or later symptoms should appear, especially aphasia, and (much less likely) facial paralysis of cortical origin, or else some affection of the cerebral nerves at the base of the brain. The patient has the advantage of being under the continued observation of Dr. W. T. Gardner; he can be easily and promptly returned to the hospital at any time should any symptoms occur to localise the bullet, and I hope he is in a fair way to remain one of the few cases in which a bullet has lodged in the brain and practically complete recovery taken place without extraction of the missile. I should add that the left temporal fossa and its neighbourhood have been repeatedly examined, with negative results.

MARGATE COTTAGE HOSPITAL.

AMPUTATION OF FOOT, WITH RAPID UNION, IN SPITE OF SYPHILIS, GOUT, AND DELIRIUM TREMENS; REMARKS.

(Under the care of Mr. BERTRAM THORNTON.)

THIS case presents an example of recovery from amputation of the leg when many constitutional conditions unfavourable to rapid healing were present. Mr. Thornton attributes the success chiefly to the antiseptic treatment employed.

The patient, a debilitated man, aged thirty-eight, was admitted early in February, suffering from disease of the right tarsus, which eventually turned out to be of a tertiary specific origin. Mr. Treves, who first had charge of the case, made incisions into the foot and got away some necrosed bone on Feb. 22nd. In spite of the operation, the foot remained swollen and inflamed, and the evening temperature varied between 100° and 101°. As the man was rapidly going to the bad, and the foot began steadily to get worse, it was decided to amputate in spite of the man's unfavourable condition, for already he had characteristic gouty inflammation of several joints. On March 3rd, in Mr. Treves' absence, Mr. Thornton amputated the foot three inches above the joint by Teale's method, using the ordinary antiseptic precautions; two small drainage-tubes were inserted at the angles of the wound, and iodoform oil and liberal absorbent wool dressings applied. The amputated foot was totally disorganised, and had the horribly offensive odour so often met with in syphilitic bone disease. The amputation wound healed steadily and well, and by the eighth day was firmly healed, with the exception of two small superficial places at the angles of the wound.

Remarks by Mr. THORNTON.—The interesting features are—firstly, the extreme debility of the patient; secondly, the syphilitic condition leading to the operation, which condition was proved by the history of the patient and the evidence of scars about the legs; thirdly, the gouty inflammation of various joints before the operation and for a fortnight afterwards; and, fourthly, the onset of alcoholic delirium, with visions of a big black dog &c., two days after the operation, lasting more or less for a week or ten days. To add to the patient's danger there had just been a very bad case of erysipelas in the adjoining ward, from which he was mercifully spared. It is rare that an amputation should heal so readily under such extreme and varied pathological difficulties. In this case there were two more interesting features which are worthy of note, the first being the formation of an abscess extending from the head of the fibula to within two inches of the operation wound, with which it had no connexion whatever. It appeared to me

that it might be due to the pressure of the Esmarch's india-rubber tourniquet, which was used with the ordinary amount of tightness at the operation over the old specific scars. Eighteen days after the amputation the patient was anæsthetised, and I opened the abscess above and below, and, as a second interesting feature, I pulled out a firm pyogenic membrane, which had the appearance and consistency of the fœtal membranes. A drainage-tube was passed through the cavity of the abscess, and membrane was discharged for about a week afterwards; and in another ten days the abscess cavity was obliterated and the two wounds quite healed. The case presented so many features of interest that I thought it worth recording. The surgeon has frequently to risk operation in syphilitic and alcoholic cases, but he is rarely called upon to operate in acute gout, and more rarely still in the presence of all three, to say nothing of the dread shadow of erysipelas in the background. The fact that this man successfully ran the gauntlet of all these foes speaks well for the blessings of antiseptic surgery, or at any rate for the vitality of the human race at the close of the nineteenth century.

Notices of Books.

A Treatise on Chemistry. By Sir H. E. ROSCOE, F.R.S., and C. SCHORLEMMER, F.R.S. Vol. III.: The Chemistry of the Hydrocarbons and their Derivatives, or Organic Chemistry. Part V. London and New York: Macmillan and Co. 1889.—This is the eighth volume of the great English work so well known to and so highly valued by English chemists. It is hard to guess when it will be completed, as there are still many important groups of compounds to be described; and we trust that a final volume, or at any rate an appendix, will give more detailed information in regard to physical and particularly to thermal chemistry, than has yet been afforded. The great merits of the treatise are its convenient classification and lucid style, the numerous references to original memoirs with which it is illustrated, and the admirable historical sketches, sometimes extending backwards to Ancient Egypt, Assyria, India, Arabia, Greece, and Italy, with which every important substance is introduced. This last feature gives constant interest as well as additional value to the book, and a good example is afforded in the present volume, where the history of discovery in regard to the terpenes and camphors is traced from Dioscorides and Pliny to Tilden and Shenstone in our own day. Each part—that is, each volume—of the organic portion of the book is complete in itself, and forms a monograph on some important series of compounds. The last two volumes (Parts 3 and 4) have been devoted respectively to the derivatives of benzene and of toluene and xylene. The present volume (Part 5) begins with ethyl-benzene and the styrolene group, in which amygdalin and isatin are included. It would perhaps have been more convenient if this group could have found a place in the previous volume. Then follows the cumene group. Nine hydrocarbons having the formula C_9H_{12} are now known, and they, as well as their leading derivatives, are sufficiently described. Cinnamic acid is at present the most interesting member of the group. About half way through the book we are introduced to the aromatic hydrocarbons containing more than nine atoms of carbon—the cymenes, of course, coming first. They are chiefly interesting because they almost certainly include the highly important terpenes and camphors, as well as caoutchouc and gutta-percha. The volume ends with an account of the last-named bodies and one or two allied substances.

Lessons in Gynæcology. By WILLIAM GOODELL, A.M., M.D. Third Edition. Philadelphia. 1887.—The review of a third edition of this book concerns principally the question of its revision to the level of present knowledge. This cannot be said to have been accomplished, notably in the case of pathology; for we find the old and incorrect statements as to the effects of flexions on the uterine circulation, as to the pathology of uterine cancer, and as to many other important diseases. Since practice must be based on pathology, our criticism is not merely pedantic. Some of the earlier chapters, being apparently clinical demonstrations on minor ailments, are graphic and practical, and there is much that is good in the work. No book, however, can be a sound guide for the student and practitioner unless it is abreast of the times; and in this respect the present work shares the fate of many others, when the author becomes too busy to read.

The Neuroses of the Genito-urinary System in the Male, with Sterility and Impotence. By Dr. R. ULTZMANN, Professor of Genito-urinary Diseases in the University of Vienna. Translated by GARDNER W. ALLEN, M.D., Surgeon in the Genito-urinary Department, Boston Dispensary. Boston: Cupples and Hurd. 1889.—The title of the work fully describes its scope, and the name of the author is ample guarantee for its thoroughness and systematic completeness. The translation is very poor, and the reader never loses the consciousness of reading a German book. It is not divided into chapters, there are no page headings, no table of contents, no index, and what may be called the editing of the book is extremely faulty. This will quite prevent its ever being a popular book.

Spinoza, "the God-intoxicated Man": a Short Account of his Life and Philosophy. By WILLIAM JOB COLLINS, B.Sc., M.D., &c. Enfield: Meyers, Brookes, and Co. 1889.—This little pamphlet contains an interesting sketch of the life, character, and teachings of a philosopher whose history and writings are still comparatively little known in this country. The author is probably right in attributing much that is distinctive in the nature and utterances of Spinoza to the influence of early personal and hereditary associations. Born of a Jewish family domiciled in Spain under the Moors, but afterwards exiled and established among the free and energetic Hollanders, he had on his side many circumstances favourable to the development of a mind at once artistic and philosophical, not wanting in worldly shrewdness, but remarkably sincere and disinterested. His frugality was conspicuous, and his unselfish devotion to principle came out in a pleasing light in his refusal, not only of honours which involved a retraction of his opinions, but of emoluments, like the legacy of De Vries, which he felt to be superfluous. In the treatise before us his religious and philosophical views, derived from his "Ethics" and the "Tractatus Religio Politicus," are explained with considerable clearness. His idea of the nature of God as an essence pervading all things, if its very vagueness proclaims that nature to be unfathomable, at all events frees him from the imputation of atheism. Christ is to him a singularly perfect man, and something more. He is the Eternal and embodied Wisdom of God to whom the Divine Mind directly and habitually revealed itself. There is a good deal of truth in his observation respecting the separate but mutually compatible spheres of faith and philosophy. The same might be said of his assertion that prophecy is a sort of skilled and often truthful imagination, and that miracles form a group of peculiar natural or not contra-natural phenomena. He justifies free thought in religion and in politics, and reasonably enough when we consider that he was himself most cautious in his freethinking and most free from dogmatism. This moderation in thought and statement is a mark of the sense of order which rules the mind of every great thinker; and it is, in our opinion, not the least notable point brought out by Dr. Collins in this brief history of a remarkable man.

Sinomia Chimico-farmacotecnica di Salvatore Di-Giorgi, Chimico-farmacista in Mazzara del Vallo. Milano, a spese dell' autore, 1889.—This little dictionary of chemical and pharmaceutical synonyms, though it does not refer to terms

in other languages than Italian and Latin, will be of use to medical men and chemists who have occasion to look at or to make up prescriptions coming from several parts of the Continent, many of the terms in Italian being similar to those used in Spanish, and a good many Latin terms being inserted which are used in several continental countries, though almost unknown here, and therefore likely to puzzle an Englishman somewhat. For example: "Cianuro" in both Italian and Spanish is cyanide—a perfectly obvious fact after one is told it, but not quite so easy to evolve from one's inner consciousness without any hint to go upon. "Electuarium thericale magnum" is not a preparation of which most of us know anything, but by looking it out in Signor Di-Giorgi's work we at once become aware that it must be treated with caution, as one of its synonyms is "elettuario d'oppio composta," which would convey to the mind of any medical man or chemist, even though he might be entirely innocent of any knowledge of the Italian language, that he had an opiate to deal with. The work of course makes no attempt to give the strengths of the various preparation, nor does it say to what Pharmacopœias the different terms belong, so that the preparations grouped together as synonymous must only be taken as approximately so. This is, however, a defect which it would have been impossible to have avoided without very largely increasing the bulk of the little volume.

Mechanics and Experimental Science, Magnetism and Electricity. By ED. AVELING, D.Sc., Fellow of University College. London: Chapman and Hall.—Dr. Aveling's books, as we have already remarked, would seem to be designed to subserve the purpose of cramming, and even of cramming for the London University examinations. Hence they are very fragmentary, and although some of his expositions are highly successful, other parts of his work are of such unequal quality that, upon the whole, it attains only a modest standard of excellence.

New Inventions.

A NEW AURAL FORCEPS.

THE instruments which mark the growth of a specialty have a clumsiness directly as the development of such specialty. The instrumentation of aural surgery forms no exception to this rule. Many forceps designed for the removal of small polypi and granulations are so bulky as to obscure, on their introduction into the auditory meatus, the structure to be removed. Aural forceps have been constructed with the handles at various angles to the blades to obviate this difficulty, but the elements of delicate workmanship, strength, and appropriate shape are only met with in a comparatively small number of cases. These qualities, in my opinion, exist in an aural forceps which Messrs. Arnold and Sons of Smithfield have constructed for use. It is a modification of one which these makers supplied me with. The instrument consists of two blades placed at an angle of about 45° to the handles. The lower blade and handle consist of one piece, and are thus the fixed point of the instrument; the upper blade, together with the handle, consists of three portions. On separating the handles, the fine fenestrated end of the forceps is made to gape and grasp the object to be removed, and on approximating them the seizure is effected. The freely mobile portion of the blades is only about half an inch long; the entire blades to the angle, about four and a half inches. The accompanying woodcut reveals the above details; and after a considerable experience of such instruments, I have no hesitation in stating that this is the most convenient and efficient I have ever used.

ALEXANDER MORISON, M.D., F.R.C.P.E.

TREATMENT OF SCROFULOUS GLANDS.

To the Editors of THE LANCET.

SIRS,—I have read in THE LANCET of Aug. 24th an article on the Erasion of Scrofulous Glands, and in your issue of this week a letter from Mr. Thornton on the same subject. Surgeons interested in the treatment of scrofulous glands seem to be divided into three classes: (1) those who advise leaving the infected glands to the curative efforts of nature, or who advocate various medicinal remedies or local applications rather than operative measures for removal; (2) the advocates of erasion, amongst whom I may include the writer of the article; and (3) those surgeons who recommend excision. I have excised scrofulous glands for many years, and certainly, if I were compelled to limit myself to one of these three lines, I should take the last—viz., excision. But, fortunately or unfortunately, the matter does not lie in so narrow a compass; scrofulous glands present infinite variety, and the treatment which is best for one case may be the worst for another. It appears to me that each is right or wrong according to the individual character of the particular case, and that to lay down a line of treatment, whether expectant or operative, without seeing the patient is to take a leap in the dark and to formulate a general rule which has no general application. It is a nice point to determine the exact moment when a gland becomes scrofulous, and, this matter settled, the line of treatment depends so much on the patient and the state of his glands that no universal rule can be given. It is useless to say in a general and positive manner that scrofulous glands should be left to nature or treated with drugs, or that they should be scooped or cut out. Many glands cannot be scooped; others it is equally impossible from their attachments or position to excise; and fewer, if any, are amenable to drug treatment. Often it is better not to interfere for a time, but rather to wait till the general health has become established, till the disease has quieted down, and till such inflammatory products as can be absorbed have disappeared. In other instances, a softening gland may be causing so much irritation, and so rapidly infecting other glands, that it must be dealt with at once. Occasionally glands which have uniformly softened may be scooped, with the rosy results described by the writer of the article. In other cases the glands are such that they must either be excised or left alone. All that can be suggested generally is that it is not well to leave scrofulous glands for an indefinite time to increase and infect healthy glands; that scooping is often the best method for cases of small or moderate enlargements with general and uniform softening; and that excision, combined or not with some scooping, is the only method available for big enlargements, or for cases in which the glands have not softened, or for those in which caseation or softening has only taken place in limited portions of the glands. I am an advocate for excising scrofulous glands, but I should be very sorry to recommend excision as a universal practice, or, in fact, to lay down any general rule for the treatment of this troublesome affection. Each case must be judged on its merits and treated accordingly.

I am, Sirs, yours obediently,

Margate, Sept. 1st, 1889. WM. KNIGHT TREVES, F.R.C.S.

THE PROPOSED INFECTIOUS DISEASE HOSPITAL AT BLACKBURN.—Energetic opposition is being offered by prominent citizens of Blackburn against the erection on the site proposed by the Health Committee of a hospital for the reception of patients suffering from infectious disease. Last week a meeting was held in the Audley district, at which a resolution was carried condemning the committee's proposal.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 14, 1889.

THE recent localised outbreak of enteric fever at the West-end of London has produced an abundant crop of complaints as to the prevalence of nuisance from the metropolitan drains and sewers, and there can be but little doubt that the complaints are, in the main, fully justified. One of the evils under which Londoners suffer is a divided jurisdiction as regards sewers and drains. The main sewers belong to the County Council, whereas the state of the drains leading from the houses to the sewers, as also of the street gullies, comes within the jurisdiction of the several vestries, and a remedy applied by one authority to one set of conduits often leaves an evil connected with the other set altogether untouched. As to the sewers themselves, it is well known that some of the main underground culverts are in a very defective state—as, for example, in the somewhat low-lying districts of Westminster; and it is notorious that no system of ventilation can be adequate in the face of faultily constructed sewers. Then again, when sewer ventilators have been found to constitute a nuisance, they have simply been closed. This, however, as some correspondents point out, is no remedy; for, unless some alternative means of ventilation is provided, the risk of forcing foul air into houses, where it will do even more harm than in the streets, is greater than ever.

House drains should, of course, be so constructed as to prevent any such evil result, and this consideration brings us to a second evil from which London suffers in a very special way. Throughout the country generally excellent codes of bye-laws of modern date have, during the last ten or fifteen years, been adopted on a wide scale; and these provide, amongst other things, for such arrangement of house drains, and for such means of connexion between house drains and the public sewers, as practically to prevent risk of foul air passing from the sewers into dwellings. But in London no such regulations exist, and whilst a few of the more intelligent are having their house drains reconstructed on the modern principles, which include disconnexion and through-ventilation, hundreds of houses are annually being newly constructed which involve nearly all the evils attaching to the old ones of a past generation. And not only is there no power to prevent this, but the officials employed on behalf of the authorities to look after new buildings are often incompetent even to advise builders and others how they may, without noteworthy increase of cost, avoid for their future tenants many of the evils now so loudly complained of.

Mr. F. WOOTTON ISAACSON has given notice that at an early moment next session he will bring in a Bill making it illegal for house agents or for anyone else to let or sell a house unless a certificate is produced, furnished by a Government inspector, notifying that the premises are in a perfectly sanitary condition and fit for occupation. Without entering into the question as to whether the House of Commons will consent to pass such a Bill into law, we may note that, if such a law applied to the country as a whole, which it certainly should do if adopted at all, a very large number of experts will be required, and it is only necessary to read the recent correspondence as to the complaints referred to, to learn that amongst architects and surveyors who now advise local authorities the number whose claim as to expert knowledge on the subject would be accepted is a very small one. And it may be further noted that, as regards new dwellings, this is the wrong way to go to work. Legislation is required as to the construction of new buildings; and nowhere is this more needed, in so far as healthiness of houses is concerned, than in the metropolis, where the regulations are in many important respects antiquated and quite insufficient to meet the demands of modern requirements. Mr. ISAACSON'S Bill will, we fear, only touch the fringe of a subject that needs to be dealt with in a comprehensive manner.

THE clinical significance of the presence of albumen in the urine is a subject which has recently reappeared in our pages, and its great importance, as well as its great difficulty, more than justify all the attention that has been bestowed upon it. There can be no doubt that, without prejudging questions which are still *sub judice*, some real change has taken place in professional opinion upon the subject. A decade or two ago, if the question had been put, "What is the significance of the persistent presence of albumen in the urine, and what is the prognosis in such cases?" but one answer would have been forthcoming—viz., that such cases were instances of organic disease of the kidneys, and that the most probable outlook was death within two years. This answer can no longer be given with safety. That it would be true of a very large number, possibly the vast majority, of such cases is very probable; but we have come to recognise that there are exceptions, and that it is our business to determine how these may be recognised with reasonable certainty. In fact, albuminuria, which was long regarded as absolutely diagnostic of grave disease, is now recognised as only a symptom—usually a most serious symptom, but nevertheless one that does not exclude the necessity of further inquiry, or relieve us from the obligation of doing our utmost to interpret it correctly. As has been well said, we may compare albuminuria with hæmoptysis. If a patient spits blood frequently, there is a very high probability that he has tubercle in his lungs; but it is a question of probability, not of certainty, and in exceptional cases even frequent blood-spitting is not followed by any evidence of tubercular mischief. So with albuminuria. Its presence most strongly suggests the existence of organic renal disease; but we have to abandon the attitude of dogmatism with regard to this symptom, and admit that it may coexist with perfect health.

Dr. PAVY has well emphasised the cardinal distinction, without regard to which all discussion of this question must be dangerously misleading. The distinction is this—that it is only in cases in which albuminuria has existed for some considerable time, *without the development of any other symptom whatsoever*, that we are justified in seriously entertaining the idea that its presence may be free from grave danger. If any other symptom usually associated with Bright's disease—such as vertigo, dyspnœa, anæmia,

persistent dyspepsia, high tension in the arteries, serous inflammations, or retinal changes—coexists with albuminuria, the case at once passes out of the category of mere functional disorder, and becomes of the gravest character. It is obvious, therefore, that in dealing with a case of albuminuria our first duty is to exhaust all our methods of diagnosis in order to determine whether any of the symptoms enumerated above are present, even very slightly, and not to rest satisfied until the fact of their absence is assuredly determined. Nothing can be more vexatious or injurious to the practitioner than to diagnose a case of albuminuria as one of the rare exceptions, when the development in a few days of some symptom shows to demonstration that, on the contrary, it comes under the very common rule.

It seems to us that rather too much has been made of those cases of albuminuria appearing under forced and unnatural conditions in health. Extreme physical fatigue, intense mental excitement, and some other causes have been shown to be capable of producing temporary albuminuria, and this fact has been much relied upon by those who advocate what may be regarded as the newer views upon the subject. It is doubtful, however, if we are justified in drawing any definite conclusions from symptoms appearing under conditions entirely without analogy to those usually prevailing. A person ascends an Alpine peak, and has an attack of hæmoptysis. This only proves, what no one ever doubted, that a sudden and extreme alteration in the conditions of blood-pressure may cause hæmorrhage, but it helps us little, if at all, to determine when hæmoptysis occurring under normal conditions is due to organic disease and when it is independent of such. A parallel reasoning may possibly apply to those cases of albuminuria occurring under peculiar and highly abnormal conditions. The fact is interesting and worthy of careful note, but we must be very chary of reasoning confidently from it.

The abstruseness of the subject is shown by the fact that even the presence of casts, so long relied upon as absolutely diagnostic of organic disease, does not justify any final conclusion. Their presence is very noteworthy. If they are numerous and constant, the probability of Bright's disease becomes almost a certainty. Their character is capable of affording important guidance. But the remarks already made upon albumen apply almost without alteration to casts—viz., that while their presence is highly significant, we must note that presence as only a most important element in our diagnosis, and not as conclusively determining the whole question.

Cyclic albuminuria, or cases in which albumen appears in considerable quantities at intervals, the urine being free from it in the interim, has attracted much attention since it was first described by Dr. PAVY. It would appear, as might almost have been conjectured, that such cases are somewhat favourable relatively, and perhaps approach nearest to meriting the designation of "functional." This term reminds us how much this question has been one of nomenclature. Whether "physiological" albuminuria is a justifiable expression has been hotly debated, and it has been argued with much force that we might as well talk of physiological epistaxis or physiological hæmoptysis because bleeding from the throat and lungs may occur under abnormal conditions in health. The correctness of the analogy may be contested, but probably Dr. GAIRDNER is right in preferring the expression "functional" albuminuria. This, we presume, involves no hypothesis beyond the assumption that albuminuria occurs apart from discernible organic disease, and that this occurrence must be due to some aberration of function. These assumptions are hardly any longer contested.

We may sum up the present state of medical opinion on this most difficult question by saying that the persistent presence of albumen in the urine is a most grave symptom, and in the great majority of cases is indicative of organic renal disease; that, nevertheless, this rule has some rare exceptions; that we are only very slowly seeing our way to the detection of these exceptions, but that we may best hope to avoid error by invariably taking a comprehensive view of each case, by allowing each symptom its due weight and avoiding the drawing of conclusions from one symptom only, by postponing any important decision until time may have helped to the clearing up of difficulites, and by deriving all the help we can from considerations of history and etiology.

FOR some reason or reasons the Scotch people seem to take their lunacy quietly, and with much less show of obstreperous and litigious resistance than do the English people. It would be highly interesting, if it were possible, to work out how far this difference is referable, on the one hand, to characteristics and peculiarities of race, and to the influence of domestic life, habits, and education; and how far it is referable, on the other hand, to the action of the lunacy laws in each country, and to the system of management and the nature and quality of the supervision. Certain it is that there is a "happy-family" sort of air about lunacy affairs in Scotland which appears to be but vainly sighed for in England.

The thirty-first Annual Report of the Commissioners in Lunacy for Scotland is a record, not only of the state of the insane in the various establishments, but also of the relations which lunacy bears to the social and domestic life of the country during the year 1888. The Commissioners state that on Jan. 1st last they had official cognisance of 11,954 insane persons in Scotland, and that the proportion of all lunatics to the population reached in this year its highest record of 289 per 100,000. This is a proportion of 1 lunatic in every 346 of the population—a proportion which is only slightly less than that for England, which is 1 in 344 for the same year. Of the 11,954 Scotch lunatics, 1893 were maintained from private resources, 10,004 by parochial rates, and 57 at the expense of the State. There was a total increase of 309 in the number of registered lunatics in asylums and other establishments, and an increase of 26 in the number of registered lunatics accommodated in private dwellings. The number of voluntary patients admitted into asylums in 1888 was 55, and the Commissioners continue to be of opinion that it is a useful provision of the law which permits persons who desire to place themselves under care in an asylum to do so in a way which is not attended with troublesome or disagreeable forms, but which nevertheless affords sufficient guarantee against abuse. The recoveries (discharged) per cent. of admissions in the different classes of establishments were as follows:—In Royal and district asylums, 38; in private asylums, 25; in

parochial asylums, 45; in lunatic wards of poorhouses, 7. But it is to be observed that in this statement private and pauper patients are not distinguished, nor is the effect of transfers eliminated so as to afford a just appreciation of the comparative proportion of recoveries in the different classes of establishments. The death-rate per cent. of the number resident was for private patients 6·4 and for pauper patients 8·1. The number of escapes in 1888 was 209, being rather less than the average proportion for the last ten years. The reported accidents numbered 95. Of these, 9 (including 4 suicides) ended fatally. In 40 cases the accidents involved fracture of bones or dislocation of joints.

While referring the progress made to beneficial changes introduced during the year in some of the institutions, the Commissioners speak in highly favourable terms of the management and administration of the various asylums under their supervision.

With regard to private patients in private dwellings, the Commissioners state that it is not required by the Statutes that all of them should be under their supervision. The circumstances which bring under their supervision an insane person who is not a pauper and who is not placed in an establishment are the following: 1. If he is kept in a private house for profit, and suffers from mental disorder of a confirmed character. 2. If, whether kept for profit or not, he has been insane for more than a year, and is subjected to compulsory confinement to the house, to restraint or coercion, or to harsh and cruel treatment. 3. If he possesses property which has been placed under curatory by a court of law. The Commissioners state that they do not regard it as desirable that any class of persons should be brought under their official supervision unless such supervision appears to be necessary to guard against abuse.

The Commissioners embody in their report some valuable information supplied by their deputies on the important subject of the boarding-out of pauper patients in private houses, and show the advantages derivable therefrom.

The report deals at length with the following instructive subjects: the influence of season on asylum statistics, the length of time during which patients remain in establishments, and the ages of the insane; and it concludes with a brief summary of the statistics of lunacy in Scotland from 1858 to 1889. From this summary it appears that the number of lunatics officially known to the Board and on their registers has increased in the thirty years from 5823 to 11,954—i.e., the number has more than doubled itself. The increase of the population during the same period has been only 34 per cent., and the Commissioners go on to say that they have frequently pointed out that the difference in these rates of increase does not necessarily indicate an increasing amount of mental disease, and that it is probably due in a large measure to what is only an increasing readiness to place persons more or less disordered in mind as lunatics in establishments. The use of the term "increasing readiness" in this relation, and as applied to what is really a decreasing unwillingness, is not free from a risk of being misconstrued into meaning more than (we believe) it is intended to mean. But apart from this, there is a vagueness in the expression of opinion here stated which leads us to believe that our information, as given by the Commissioners in Lunacy for Scotland, is not yet completed on this all-important topic. Surely, after so many years of methodical consolidation of our lunacy systems, we have a right to expect that before long we may be able to have a more definite answer as to whether the proportional increase of registered lunatics to population is merely the outcome of our present methods of dealing with the insane, or whether it is to be taken as implying that insanity is really on the increase in our midst. The adjustment of the evidence in the matter is no easy one; but if our lunacy legislation and developments have in any sense attained their object, and if our progress in the working of lunacy departments has been at all commensurate with the trouble taken, the old stock explanations of twenty-five years ago, as to accumulations of chronics and the like, ought sooner or later to wear themselves out.

HABITUAL DRUNKENNESS may be decreasing, but it is still a painfully common disease, as every practitioner of any experience could tell. True, he does not tell. It would astonish the public if medical men were to reveal all they know of this class of cases. But there is one document which year by year brings this subject into public notice, and imposes on ourselves the duty of some criticism. We refer to the Annual Report of the Inspector of Retreats acting under the Habitual Drunkards Act, or, to use the new title, given in the amended and permanent Act of 1888, the Inebriates Act. The present report is the ninth, and may perhaps be considered, on the whole, satisfactory; though, as we read it, and in the light of the great frequency of habitual drunkenness, it admits of being very differently regarded. There were only seven establishments or retreats for England licensed by the justices in 1888, the same number as in 1887. It is significant of the small grip of the evil which this legislation has that so small a number of retreats should meet the demand, and that this does not show much tendency to increase. The inspector, however, is able to report an increase in the number of patients admitted, in 1888 it being 99 as against 66 in the previous year. The admissions were distributed as follows:—Colman-hill House, near Halesowen, 19; Dalrymple House, Ricksmansworth, 16; High-shot House, Twickenham, 13; Montague House, Brook-green, Hammersmith, 10; Old Park Hall, Walsall, 10; Tower House, Westgate-on-Sea, 31; Amesbury House, Amesbury, none. It is gratifying to find an increase of 33 in the admissions, though we must all admit that 99 is a very inadequate proportion of the inebriates of England, for whose recovery the only reasonable chance is to be found in the discipline of institutions of the kind we have named; and, judging from the tenor of the reports from the licensees of the retreats which the inspector gives in his report, it is clear that most of them are of opinion that legislation will have to go much further than it has done if much good is to be effected for this most pitiable class. Liberty is one of our idols; but the liberty of an habitual drunkard is a very questionable and limited quantity. How can the word be applied to a human being without the slightest power to resist taking that which he knows is ruining his business, and destroying all the finest tissues in his body, brain-cells, and liver-cells, and kidney-tubes. Parliament has just passed an Act which asserts that the liberty of an

infected person shall not secure him from having his case reported to public authorities who have the power by other Acts to require his confinement under strict conditions of isolation. But the liberty of an habitual drunkard is still so far sacred that, apart from his own consent, he is not to be restrained in the use of alcohol, though it be apparent to everyone that he is not a free agent in regard to it, and in spite of the probability that his indulgence in it will bring him and his family ere long as a burden on to the rates. Parliament has no such compunctions about persons affected with other kinds of unsoundness of mind, and in the era of social legislation which is said to be setting in, when the great miseries which ruin families and individuals will have to be considered, this class of cases will have to be met by something more than the miserable legislation which requires the assent of an habitual drunkard to his own proper treatment. There are only two objections of any force to the improvement in legislation demanded by those who study these cases, and to the introduction of the principle of compulsion. One is the interference with personal liberty, with which we have dealt already. It does not exist in the real habitual drunkard. It is gone, and such legislation is an attempt to recover it. Let any reasonable precautions be taken to verify that it is so. Let magistrates as well as medical men be required for this verification. But thereafter facts should be accepted, and the habitual drunkard treated in a serious manner. The other objection is the length of time required for treatment, and the costliness of interference with liberty for such a time. The answer to that is this—that the precautions we presuppose would exclude all but very real cases. The alternative in most such cases to proper treatment is ruin and pauperism at a still greater cost to the parish or the State. And we should expect this further advantage from a strong compulsory measure—that the very dread of it would operate beneficially in a large number of cases before they reached an extreme form, and prevent the occurrence of such a stage. With these views we endorse the statement of the licensee of the Hammersmith Retreat, who says: "I cannot help wishing that more could be done in the way of legislation, as it is often impossible to induce those really the most in need of control to enter a retreat." The work of Dr. DALRYMPLE, Dr. CAMERON, and others will remain unaccomplished till such legislation is obtained.

OF the many studies pursued by the busy medical practitioner, medical geography seems to offer the greatest variety as regards the subjects it embraces; and as a change of work often acts as a rest and a recreation, so do these many subjects offer frequent opportunities of the main investigation being constantly pursued with little chance of the student being wearied by sameness or fatigued by monotony. Medical climatology, which is a necessary part of medical geography, is in itself a comprehensive branch of science, embracing as it does not only the study of the great factors of general climate, but the almost innumerable phenomena of the minor factors which share in the formation of local climates, so important in relation to disease and its geographical distribution. We all know that the physical configuration and the geological structure of a district greatly influence its local climates, not merely physically and chemically, but in a variety of ways, the intricacies of which require investigation on the spot before their functions can be known. A single instance will suffice: without local knowledge it would be impossible to appreciate the effect of aspect, soil, and subsoil, of solar and terrestrial radiation, or of the rainfall and atmospheric currents, in determining the specific forms that characterise the local flora, indigenous and cultivated alike. The flora of a district is the most faithful and reliable exponent of its local climate, far surpassing in delicacy the most delicate of meteorological instruments. Whoever would study medical geography must be familiar with plant life, the soil in which plants grow and thrive, the rock-base supporting that soil, and the aspects of the land where these ornaments of nature enjoy perfect health, as evidenced by their form, colour, and vigour. In the pursuit of this delightful part of the medical geographer's work, he may leave behind him for a while vital statistics and other severer studies, and whilst enjoying his vacation rambles gather fresh stores of facts amidst the beauties of the lakes, the mountains, the dales, and the sea-shores of his country, the collection of which will tend not only to create a fresh interest in natural history, but enhance the pleasures of his wanderings and their healthful influence on his mind and body.

We have been led to these remarks by an article which appears in our columns to-day on the "Infrequency of Cancer among Females in the English Lake District," by Mr. ALFRED HAVILAND, as a supplement to his former articles published in THE LANCET last year on the "Distribution of Cancerous Diseases in the British Isles." Mr. HAVILAND has been engaged in this investigation for more than twenty years, and each fresh addition to the facts that he made public in 1868 seems to corroborate the propositions he then laid down. The author has always avowed himself to be no theorist, but simply a collector of facts relating to the distribution of disease in this country, and to these disease-facts he adds those pertaining to the several factors of local climates. Whilst acting in this capacity, he claims, however, the right to place certain constantly recurring coincident facts together, and leaves his readers to draw their own conclusions. In this way some highly interesting and important suggestions are placed at the disposal of those who make the natural history of disease their study. And the practical outcome of such investigations is evident; for at a time, when all are seeking health and sites for homes some guide is required, the questions which are at the bottom of the search not being at present easily answered either by the medical profession or by scientists generally. A large sum of money has, however, been paid by the public for the collection of the disease-facts, and for making them known by means of reports. These facts have never been utilised until now in such a manner as to show their distribution throughout the country side by side with those connected with local climates, local geology, and local configuration of land.

The facts connected with the English lake district will be interesting to the dwellers in that delightful part of England, as well as to those who either have visited it, or are about to enjoy its beauties.

Annotations.

"Ne quid nimis."

ARMY MEDICAL OFFICERS.

THE Army Orders of Sept. 1st promulgate a Royal Warrant amending in certain respects the regulations relating to the retirement of officers. It contains an important modification of the rules affecting the pay of medical officers placed on the retired list at their own request. "An officer of our Medical Staff who on voluntary retirement has served for less than three years in the rank from which he retires shall be only entitled to the gratuity or retired pay assigned to the next lower rank." This Warrant appears to have anticipated the recommendation of Lord Camperdown's committee that "a certain term of service should be required from officers after promotion to a higher rank before they are permitted to retire upon the rates attaching to the higher rank, except in cases of permanent ill-health contracted in and by the service." From the short time which has elapsed since the presentation of the report, we can hardly suppose that the regulation has been adopted in consequence of it, but it is satisfactory to find that it is in accord with it. It gets rid of the absurdity of selecting officers for promotion on account of their special fitness for administrative duties, and then permitting them to retire on the higher rate of pension attached to the rank before they have for any reasonable time discharged those duties for which they were specially selected. The regulation does not apply to officers under the rank of brigade-surgeon, nor does it affect any who are retired on account of ill-health, or of having attained the age laid down by regulation for compulsory retirement.

BRAIN FUNCTION AND HUMAN CHARACTER.

IN a paper read before the Anthropological Section of the British Association, Mr. Bernard Hollander of Vienna brings forward some interesting observations on the possible connexion between the areas allotted to various brain functions and the evidences of human character. He draws a suggestive parallel between the conclusions of Ferrier and other geographers of the cortex cerebri and the less exact investigations of the early phrenologists. He reminds us, for example, that the territory assigned as the source of the facial nerve (the ascending parietal and mid-frontal convolutions) nearly coincides with the position of Gall's "organ of mimicry." A similar agreement exists between the supposed centre for taste in the temporo-sphenoidal lobe and the organ of "gustativeness"; between that for mental attention (the first occipital convolution) and Combe's area of "concentrativeness"; that for the facial elevators (the posterior frontal area) and imagination; for the platysma, "the muscle of fright" (ascending parietal) and Gall's apprehension area; for angry expression (superior temporo-sphenoidal) and destructiveness. The parallel here drawn certainly wears an aspect suggestive of reality. At the same time, however, we must receive it with a considerable degree of caution. It must not be forgotten that the question of brain localisation has two sides. What the localisers, on the one hand, take for solid ground, Goltz has, after careful examination, pronounced to be only a mirage. The functions located in a given area, according to him, are easily assumed by another, as if they were due in each case merely to a transient excitation of the will. It behoves us, therefore, to accept with reserve even such attractive coincidences as those above mentioned; though the mere fact of their independent recognition by observers in little or nothing allied to each other should at least obtain for them what Mr. Hollander asks—a fair consideration.

EDINBURGH AND THE UNIVERSITY EXTENSION SCHEME.

FOLLOWING the successful example set by Oxford, the University of Edinburgh has arranged for a series of summer gatherings, which will be inaugurated by a conversazione to be held in the Museum of the Science of Art on Tuesday, the 24th inst., and will conclude on Friday, Oct. 5th. The fortnight's programme will be a varied and interesting one, consisting of courses of lectures by eminent professors and scientists, together with excursions, conversaziones, social entertainments, &c. Amongst the forty or so lecturers may be mentioned the following University professors—Messrs. Baldwin Brown, Crum Brown, Calderwood, Cossar Ewart, Ewing, Geddes, Geikie, Haycraft, Kirkpatrick, Mackinnon, Masson, Nicholson, Steggall, and Tait; whilst Lord Moncreiff and others are also set down for one or more lectures. The subjects treated will come under the headings of Physical Science, Biological Science, History and Ethics, Political and Economic Science, Literature and Art, Music, and Elocution; whilst the lectures themselves, numbering over fifty, will cover a very wide ground. The recreative portion of the programme will include excursions to places of historical, artistic, and scientific interest in and near Edinburgh—all personally conducted by gentlemen qualified to explain the beauties and peculiarities of the particular place visited. In addition, several gentlemen have expressed a desire to invite to social entertainment at their residences those who attend the gathering. The price of tickets for the whole fortnight's gathering seems almost absurdly small—viz., 10*s.* 6*d.*, ranging down to as low as 2*s.* 6*d.* for those who are only able to attend during a portion of the fortnight. Tickets and full information can be obtained from the secretaries, David Philip, S.S.C., and John Arthur Thomson, M.A., 41, Charlotte-square, Edinburgh. The University gathering has been good-humouredly described as "Education by Picnic." Whilst we may believe it to be an effective, we cannot possibly doubt its being a pleasant, way of making good one's educational deficiencies.

THE EMOLUMENTS OF GENERAL PRACTICE.

IT is very easy for junior practitioners to fall into the error of over-estimating the value of practice in general, or of a particular practice with which they may happen to have some acquaintance, by making rough calculations based on the amount of work done in a day and the value of each item as put down in the various medical tariffs that have been published, or as mentioned in a general way as the usual charges of the particular practice in question. Thus, to take a rough example. The average number of visits paid per diem is sixteen, a dozen patients are seen in the surgery, there are fifty midwifery cases a year, and there are some clubs which bring in £40. If the visits averaged 4*s.*, the surgery patients 2*s.* 6*d*, and the confinements £2 2*s.*, the practice would be worth almost £1500, and could probably be worked even in the busiest times, when the visits per diem might be expected to reach to twenty-five or even thirty a day, without an assistant; it is, in fact, exactly the sort of practice which most men would like to have. Doubtless such practices exist, but they are few and far between, and the young man fresh from the hospital who expects to be able either to buy or to make such a one will run a very great chance of being disappointed. In a practice implying the amount of work mentioned, it would probably be found that four of the visits were either paid to club patients or to obstetric cases; that two more were paid to persons for charity or for some other reason which prevented them being remunerative; that the remaining ten, instead of averaging 4*s.*, would not average more than 3*s.*; that eight

out of the twelve surgery cases were unremunerative, and that the other four paid only 1*s.* 6*d.* each. The midwifery, again, would probably not average more than £1 11*s.* 6*d.*, and the bad debts would be very moderately computed at 10 per cent. Added to all this, there must be taken into account the fact that, in most practices, a good many of the patients, while able and willing to pay 2*s.* or 2*s.* 6*d.* a visit during a short attendance, are utterly unable to meet a bill of from £7 to £8, such as would necessarily be run up by attendance in the course of a long and serious illness, and these, therefore, have to be charged, say, £2 or £2 10*s.*, or some such sum as may be supposed to lie within their means, however long the attendance may have been. These considerations and corrections will be found to have brought the actual yearly income of the supposed practice down to about £700, and it is by no means a bad representative of a practice of that amount. At all events, we will venture to say that it is a much more common type than the utopian example given above. Beginners who make their bills out by the published tariffs not unfrequently find that, valuable as these documents are in the hands of experienced practitioners, they are apt to prove pitfalls if relied on too absolutely. Artisans cannot pay 2*s.* 6*d.* a visit for long, however small a house they live in; and tradespeople who live in £50 houses will very frequently show a practitioner the door if he charges them anything like 5*s.* a visit. Again, mercantile and professional people will rarely pay 7*s.*, even if they do live in £100 houses. In how many practices, too, are surgery patients charged 1*s.*, or indeed any smaller sum which they seem willing to pay; and how often, from the stress of competition, is midwifery taken at 15*s.*, or even at 10*s.* or less. These little matters are not always thought worthy of mention in the tariffs, as the system of low fees is not to be commended; but they should, nevertheless, not be ignored by a young and inexperienced man who is commencing.

LEPROSY IN BRITISH GUIANA.

WRITING in *Timehri*, the journal of the Royal Agricultural and Commercial Society of British Guiana (June 1889), Mr. J. D. Hilles, F.R.C.S., says that to the most casual observer the increase of leprosy in Demerara must be apparent, that the asylum cannot be enlarged fast enough to contain the cases seeking admission, and that the increase has been greatest in the last decade. The earliest accounts point to the disease having been introduced into the colony by slaves from Africa, and the colonists took measures to isolate them. But, as a result of immigration, leprosy was introduced from India in 1842 and 1858, and from China in 1861 and 1862. In 1831 there were some 431 leper *negroes* in Demerara; at the present time, says Mr. Hilles, "it is calculated that there must be more than 1000 cases of leprosy here, or 1 in every 250 of the population, and this notwithstanding the large number that die annually from the disease—over 16 per cent." He relates how an Indian tribe—the Warrans—which 50 years ago was brought into contact with the leper colony, became infected with the disease, no other tribe having it. He also points out that leprosy occurs in largest amount in the vicinity of the Leper Asylum than elsewhere. So that Mr. Hilles is convinced the disease is communicable—(1) by intermarriage or cohabitation, and (2) by inoculation or contact. In dealing with each of these points, he states that the late Dr. Gavin Milroy, who was chiefly responsible for the report of the Royal College of Physicians in 1867, paid a short visit to the West Indies, but had not time to make himself acquainted with both sides of the question. In more than one instance he says that Dr. Milroy was misled. In Mr. Hilles' own experience, he has seen cases which had undoubtedly arisen by contagion. British Guiana now possesses well-appointed Leper Asylums, each with a resident medical superintendent. But the difficulty is to prevent the inmates absconding. Mr. Hilles thinks that it is not too much to ask them to submit voluntarily to strict segregation—the only arrangement at all likely to stamp out the disease. But he thinks that the West Indies should combine and form a large leper community in an island (e.g., of the Caribean Sea), and by insisting on strict isolation succeed in eradicating the disease.

THE BACILLI OF CHOLERA, TYPHOID FEVER, AND TUBERCULOSIS IN MILK, BUTTER, AND CHEESE.

THE experiments of Dr. L. Heim in the laboratory of the German Imperial Health Department on the vitality of germs in certain kinds of nutriment, have led to the following results: In non-sterilised new milk the germs of cholera bacillus remain as long as the milk has not become very acid. A somewhat high temperature, which accelerates the acidity, accelerates the destruction of cholera bacilli. Occasionally they could be seen for two or three days even in acid milk. Their extreme vitality was six days. In butter they could in favourable circumstances live a month; but in butter that had become caseous and in cheese-curds they could barely live a day. The bacilli of typhoid fever had a much greater power of resistance in milk; in non-sterilised milk which had become acid, they were still visible after twenty-one and thirty-five days, but could not be found at the end of forty-eight days; in butter their vitality lasted three weeks; in whey and natural cheese, only three days. Milk which contains tubercle bacilli may produce the disease. These bacilli may live for three days in decomposing substances. Milk to which tubercle bacilli had been added was after ten days still infectious, but not so in four weeks, especially if decomposition had taken place in the meantime. In butter the vitality of tubercle bacilli lasted four weeks. In whey and cheese they were able to communicate the disease for a fortnight, and they remained visible for thirty-two days.

A CRY AGAINST CYCLISTS.

THE *Ladies' Pictorial* has issued a bitter and angry cry against the world of cyclists, on the ground that the cyclist is a public danger to the pedestrian traveller and a danger also to himself. "The medical profession," adds our contemporary, "can testify to the danger of cycling, yet it goes on unchecked by tax, by the common sense of those seeking recreation, or by public opinion, which is so often clamorously expressed against a far less grave nuisance and danger." This is indeed a grave charge, but we are happy and generous enough to say that an appeal to the profession of medicine would hardly bear out the statement of danger which the writer above quoted assumes. There are dangers from the excessive race riding and what is called "record breaking" of cyclists; dangers we were amongst the first to point out, and which our good friend *Mr. Punch* has lately most amusingly, and not one bit too severely, criticised. But these dangers are confined to a peculiar and, we are glad to think, very limited class of young enthusiasts, who, full—too full—of energy, want to carry all before them, to beat the horse out and out, and to come in little less than second best with the penny-a-mile train. When this is admitted and deplored by all true friends of the art of cycling, the worst is told, in so far as the medical profession can tell; for, probably, of all strong exercises this is the one which, considering the vast numbers who carry it out, either for recreation or for business, brings the smallest amount of grist to the professional mill. Even in hospital practice it is astonishing to observe how very few cases of accident

from the cycle are brought in—a fact the more remarkable when we recall the crowded streets through which the wayfarers, on two or three wheels, wend their course. Whether it may be advisable to make the law more stringent than it now is against cyclists is a question which may have to be reconsidered. The cyclists themselves consider that already the regulations under which they are placed, and the restrictions which apply to them, are too severe, and they would resist, we may be sure, any attempt to lay a tax on them. As to the attempt to suppress them by any arbitrary measures, the very idea is absurd. A mode of locomotion which gives to man twice the rapidity of progress on foot could no more be prevented, now that it has been established, than the use of carts and carriages.

RECURRENCE OF CANCER OF THE BREAST AFTER AMPUTATION.

FROM microscopic examinations of carcinomatous mammæ amputated by Professor Küster, Dr. Heidenhain predicted a return of the cancer in twelve cases, because parts of the morbid growth had remained in the wound. In the other cases he diagnosed a radical cure, which diagnosis had proved correct up to the date of the publication of his paper, because the operation had removed the whole of the morbid growth. The usual cause of the recurrence is that only microscopic parts of the gland or the tumour remain on the surface of the pectoralis major. In thin women the whole mamma is firmly attached to the muscle, but in obese subjects small glandular lobules are generally attached to the fascia between the mamma and the muscle, so that in amputation above the muscle small particles of the gland may easily be left. Every mamma in which a single cancer node is found, according to Heidenhain, is largely, perhaps *in toto*, diseased. He found the epithelial cells of the acini proliferating in all parts of the mamma, and observed hypertrophy of the peri-acinous connective tissue, and he believes that these acini remaining in the wound form the origin of late secondary growths. In the retro-mammary fat there are, side by side with the bloodvessels, lymphatics leading from the mamma to the subjacent fascia, and the latter were, in two-thirds of the cases, full of metastatic cancerous masses. The pectoralis major itself is only affected when a metastatic cancer-node invades the muscle from the fascia, or the original tumour attacks it by its own simple growth. Heidenhain concludes that, to make amputation of the mamma more successful, it is necessary, even in freely movable carcinomata, not only to remove the whole mamma, but also a superficial layer from the whole of the pectoralis major, and, in tumours which are closely connected with the muscle, to entirely extirpate the latter.

SOUTH AFRICAN PRACTICE.

SOME excellent advice to those who propose to practise in South Africa is given in the last number of the *South African Medical Journal*—advice which applies equally well to other colonies. First of all, the immense importance of clinical training in a school where there is abundance of material, as in London or Vienna, is insisted on, as the colonial practitioner, having no consultants to apply to, must himself be equal to all emergencies. An assistancy for six months to a general practitioner at home is also recommended, in order to learn how to treat those slight ailments which form so large a proportion of private practice, and how to study the foibles of patients and the principles and practice of medical ethics. Again, after landing, it is most advisable to take a post as *locum tenens* before settling, in order to gain experience as to the ins and outs of colonial practice, and to have time to make up one's mind as to where to settle. The difficulty of gaining accurate information about a field of practice is extremely great, the solicitations of local residents and their magniloquent delineations of the openings and opportunities for practice not being to be trusted in the least. A man must judge for himself, and he can only do this by gaining experience in South African practice. "Then, again," pursues the *South African Medical Journal*, "and this is to the young men—do drop the *Veni, vidi, vici* style so common in new arrivals. It will be knocked out of you by-and-by in any case, and for the honour of your profession and for the sake of good fellowship with your fellow practitioners, doff it at once. Half the dissensions between established practitioners and new beginners result, not from what the latter do, but from the irritating way they do it. Never neglect the minor morality of professional life—etiquette. This, read between the lines of professional routine, may be described as a code of laws designed to secure the greatest good for the greatest number. If you are settling in a town where there are already *confrères*, call on each and everyone before you prescribe for a patient. Ascertain their fees and mode of doing practice, and conform thereunto as closely as possible. Then in all respects begin as you intend going on. If you intend doing your own book-keeping, do it from the beginning; if you mean to place it in the hands of an agent, commence that course concurrently with practice. The same rule applies to the decision between quarterly or annual accounts, between abridged or detailed bills, between charging on medicine or not. Changes in any of these respects invariably irritate patients. And, lastly, make up your mind to pursue your practice with an honourable professional ideal always before you, and never allow yourself to be tempted into the devious by-ways so common in South African life."

THE ETIOLOGY OF GOITRE.

THE causation of endemic goitre has for a very long time excited the interest of physicians and surgeons, and many investigations have been made into the soil, the water, the air, the habits, and the food of those dwelling in goitrous regions. But it cannot be said that the matter has been cleared up, or that we have advanced much from the position our forefathers held a century or even centuries ago. Dr. Th. Kocher of Berne, who has a great reputation for the successful excision of enlarged thyroid bodies, and who was the first to point out and to establish the ill results of complete removal of the thyroid body in children and adolescents, has recently conducted some careful investigations into the causation of this disease. He first of all determined accurately in what parts of his own canton goitre was common. On comparing the water of these regions with that of goitre-free neighbourhoods, he finds that the one striking difference is that where goitre is abundant the water contains a considerable quantity of organic or organised material, and he concludes that it is this factor which determines the prevalence of goitre in any district. He finds that in certain goitrous parts particular families who have access to special water-supplies in which there is not this quantity of organic matter remain free from goitre, although breathing the same air, living on the same soil, engaging in the same occupations, and eating the same food as their very goitrous neighbours. On comparing the chemical composition of goitrous and non-goitrous water in the Berne canton, the only other difference he found was that the quantity of sulphate of lime was less in the goitrous; but, as it is well known that goitre is often found in those who drink water richly laden with this salt, this difference cannot explain the great pathological fact. Dr. Tovel has found that the water in goitre-free parts contains a very minute quantity of mitro-organisms. And it has further been shown that if goitrous water is injected into rabbits the thyroid gland is very

prone to swell, although in dogs the injections have no effect. Kocher's investigations do not certainly completely clear up this difficult subject, but they throw some light upon it, and as such are to be heartily welcomed.

DIABETES MELLITUS AFTER EXTIRPATION OF THE PANCREAS.

DRS. V. MERING and O. MINKOWSKI report a large number of experiments from their laboratory at Strasburg, all showing that extirpation of the pancreas results in true diabetes mellitus with all its ordinary symptoms. A dog whose pancreas had been removed secreted after forty-eight hours' fasting from 5 to 6 per cent. of sugar in his urine. Another dog weighing 15 lb. secreted under an exclusive meat diet two pints of urine daily, with 6 to 8 per cent. of sugar. Introduction of grape sugar into the food resulted in an increase of this by 6 per cent., by far the greatest part of the grape sugar being excreted without having undergone any modification. The urine also contained appreciable quantities of "acetone." The percentage of sugar in the blood was likewise much increased, being in one case 0·30, in another 0·46. Glycogen at the same time disappeared altogether. In a dog, for instance, which had been diabetic for four weeks, and which was killed while being fed on full flesh diet, neither liver nor muscle contained glycogen. Transfusion from a diabetic dog caused no secretion of sugar in a healthy dog.

RAILWAY AMBULANCE.

THE ambulance movement is universally accepted as one of the most useful influences called into action by the spirit of social reform. It has gathered its promoters and assistants from every class, and there can be no doubt that it has in a multitude of cases minimised, if not removed, the danger primarily arising out of sudden illness or injury. The history of its past achievements fully justifies the claim put forward a few days ago by Mr. Waynman Dixon for a further great extension of its operations. This is no less than the formation of an efficient corps of railway ambulance men. First aid, Mr. Dixon reminds us, is now to a large extent available in case of need in the mining districts, while throughout our extensive railway system, where the danger of accident is hardly if at all less, the means of skilled and ready help are hardly to be found. It is not alone for the rare occasions of great disaster, but even more for the succour of numerous isolated cases of injury, that he now proposes to recruit the ranks of the modern hospitallers. In this connexion it will be profitable to note that during last year the number of fatal accidents on railway lines amounted to 1 per 807 men employed, and of injuries more or less serious, but not fatal, to 1 in 157. The help required is of two kinds, intelligent and material. The latter would be represented by simple apparatus, a few bandages, slings, and the like to be placed in the guard's van of each train; the former by the necessary instruction of *employés*. This could not be more efficiently carried out than it now is by means of voluntary instructors, and for this purpose it is needless, as Mr. Dixon says, to seek for better methods or machinery than those afforded by the St. John Ambulance Association. The cost of training would be trifling. It is estimated that an annual payment of sixpence per man would suffice to educate 5 per cent. of the *employés* annually. An entrance fee of another sixpence might be required to launch the undertaking. In consideration of the end in view, its practical effect as a form of workmen's insurance, its utility to passengers, and the probability of its diminishing the accident claims now paid by the companies, the project is equally worthy of its modest maintenance at the hands of the men and their masters, while the travelling public may reasonably assist it with at least an occasional *douceur*. Workmen in other callings have shown much interest and even enthusiasm in ambulance training. The railway men might safely be relied upon to show an equal willingness to learn; and this means much towards ultimate success. Apparatus are most useful, but knowledge of what to do is the first necessity. The former may in emergencies be extemporised; the latter must be stored before it is available for work.

DR. VON NUSSBAUM'S JUBILEE.

A KINDLY TRAIT of professional life among our Teutonic kinsmen is their punctual observance of the jubilee days of those who have done them service or honour in the practice or teaching of the medical art. Hardly a month passes without some such display of pious feeling on the part of the younger generation towards those whose day is far spent. Privy Councillor Dr. von Nussbaum is the latest recipient of the jubilee congratulations of old pupils, patients, and friends, and his noble career sufficiently explains the cordiality of the celebrants and the world-wide extent of their participation. He was born at Munich in 1829, and having selected medicine, especially its surgical department, as his profession, he qualified so brilliantly for it in his undergraduate years that in 1852 he was appointed assistant in the surgical wards of the General Hospital at Munich, graduated in 1857, became member of the teaching staff of the same University, and in 1860 was made Professor in Ordinary of the Surgical Clinique. It was in 1870–71, however, that he most distinguished himself, and his self-sacrificing devotion to the wounded in the sanguinary campaign of that period, the skill and success of his operations, often performed under fire, and his contributions, under circumstances the most trying, to the efficiency of the field ambulance department, will form a bright page in the medico-military annals of our century. The attainment of his sixtieth birthday was the occasion that evoked the loyal, the well nigh filial demonstration of the 2nd inst., and the messages by telegram and letter, often from far beyond sea and from either hemisphere, the laurel wreaths, the bouquets, and addresses that greeted him on the morning of that day must have been to him recompense more than sufficient for his life-work. Except for the injury to the lower extremities, contracted in the Franco-German war, Dr. von Nussbaum enjoys the soundest health and vigour of all his faculties, physical and mental, and, as in 1880, when he celebrated his Doctor-jubilee, so now, on the festive recurrence of his sixtieth birthday, there is every prospect that many years of beneficent activity are yet in store for him, whether in the operating theatre or in the surgical wards, whether in the academic chair or in the Privy Council chamber.

FEVER IN LONDON.

THE autumnal increase of scarlet fever is engaging the attention of the Metropolitan Asylums Board, who have found that the accommodation in the hospitals now occupied is likely to be insufficient for the wants of London. It has therefore been determined to prepare the Northern Hospital for occupation by convalescents. The managers were not unanimous on this point, the opinion being held by some that the South-Western Hospital should be opened for acute cases. The Northern Hospital will so far relieve the other institutions that it may be hoped it will meet all the requirements of the managers. It may be anticipated, however, that the cases will increase in number until the end of October, and it is possible that the South-Western Hospital will be required later. No anticipations can be formed as to the effect a new Notification Act may have in

throwing work upon the managers; that it will lead to an increased demand for hospital accommodation, however, is a certainty, but to what extent experience only can show.

ABNORMAL OR CONTRARY EFFECTS OF ANTIPYRETICS.

PROFESSOR S. E. HEUCHEN, of Upsala, has frequently observed in the academical hospital the so-called contrary effect of antipyretics, mostly of chinolin, but also of antipyrin, antifebrin, and phenacetin. He believes the increase of temperature on administering these drugs to be due to a variety of causes. In some of his observations there might have been a spontaneous rise of temperature, while in others the symptom is explained as being due to an irritation communicated from certain parts of the body. Professor Heuchen mentions several cases in which the administration of chinolin resulted in vomiting or diarrhœa. In these, however, the doses had been large enough to be considered toxic. A similar explanation is suggested of a case mentioned by Laache, in which an extensive rash was produced, the temperature sank, and the patient became collapsed. A rash was observed by Heuchen only in cases in which chinolin had no abnormal action on the temperature. The best explanation of this singular occurrence is, however, probably to be found in the observation of Geigel of Würzburg, who states that on administering antipyrin or antifebrin the temperature always first rises and then rapidly falls upon the appearance of diaphoresis. He thinks that in those cases in which the diaphoresis is slow in appearing the rise in temperature has probably also lasted longer, so that this contrary effect is due solely to the absence of diaphoresis.

LUMBAR CHOLECYSTOTOMY.

IN March, 1885, Mr. Wright of Manchester recorded in our columns a case in which, after an exploration of the right kidney for stone with a negative result, an enlarged gall-bladder was opened through the same (lumbar) incision, and a large stone removed from its interior. Dr. Mears of Philadelphia has recently had a somewhat similar experience, which is published in the last volume of the Transactions of the American Surgical Association. The patient was a woman twenty-nine years of age, who was admitted to hospital for the operation of nephrorraphy. She was found to have a rounded tumour, about the size of the kidney, lying a little to the right of the middle line and at the junction of the umbilical and hypogastric regions. This tumour was freely movable in all directions. A vertical lumbar incision was made, the right kidney exposed, and its capsule divided and stitched to the edges of the wound. The tumour was uninfluenced by this procedure, for, pressing it towards the loin, it was made to bulge in the wound covered by parietal peritoneum. The serous covering was divided, and then the nature of the tumour—a distended gall-bladder—was clearly recognised. The fundus was incised, and a gall-stone was found impacted in the cystic duct. As it was impossible to extract the stone, it was crushed *in situ*, and the fragments were pushed on into the intestine, "the freedom of the passage being announced by the passage of intestinal gas." The patient made a perfect recovery. The case is interesting rather as a warning than as a guide. There is no advantage in opening the gall-bladder in the loin; on the other hand, there are serious disadvantages in doing so. The case is a good example of the drawbacks of the lumbar incision in those instances in which the nature of the case is doubtful. Had an abdominal exploration been made, the nature of the tumour would have been at once apparent, and the treatment would have been carried out in the most advantageous manner.

A RESCUE RACE.

AT the regatta at Bognor on the 31st. ult. there was a new kind of race, having for its intention the encouragement of the art of saving life at sea, and called "The Rescue Race." The idea of it was suggested, and the plan for it arranged, by Dr. B. W. Richardson, who is resting for a few weeks at Bognor from professional work, and the competition, carried out by the boatmen with great spirit and skill, excited much enthusiasm. The arrangements of the race consisted in casting a number of dummies, each the size of a human body, into the sea, about 200 yards from land, as if they had been persons capsised from a boat and were drowning. At the signal of distress, the boats lying on the shore, each boat containing two men, were pushed rapidly into the sea, and rowed with all speed to the scene of supposed peril. On reaching the spot, one man in the boat had to leap into the sea, seize one of the floating bodies, get it into the boat, and with his comrade return to land as fast as possible. The boat which first reached the shore and placed its burden safely on dry land took the first prize, and so on in order of arrival for two other prizes. Another competition having the same object was carried out by two of the bathing-women, without boats, their skill being demonstrated by swimming. The prizes, amounting to seven guineas, were contributed by Dr. Richardson and his friends, and with other regatta prizes were presented to the successful candidates in the evening by the Rev. Dr. Conder, chairman of the local board. Such a rescue race might be made a prominent feature at every regatta.

CHOLERA.

A TELEGRAM from Athens, dated Sept. 11th, states that according to intelligence received from Constantinople some cases of cholera had occurred in the latter city. Cholera is raging at Basrah (or Bassora), a city in direct river communication with Bagdad, where a severe epidemic of cholera also prevails, and where, according to Mr. F. D. Mocatta, there is a population of 26,000 Jews, who have been thrown into a state of great destitution, and who are without resources for burying the dead. As direct steamer communication exists between Bombay and Basrah, it is to be hoped that the authorities at the latter place will leave nothing undone to stamp out the epidemic. A melancholy interest will attach to the receipt in London from Basrah of a telegram, the simple and telegraphic brevity of which tells its mournful tale perhaps more eloquently than many words. The telegram in question runs thus:—"On the 16th Aug., at H.B.M.'s Consulate, Basrah, Persian Gulf, of cholera, Eric Charles, aged three years and a half; on the 18th, Maude Elma, aged five years and two months, only children of Patrick and Ethel Robertson; and, on the 21st Aug., Patrick J. C. Robertson, H.B.M.'s Political Agent and Consul, aged forty-two."

THE MILK TRADE.

IN a recent address delivered by Mr. S. W. North, medical officer of health to the city of York, to the National Association of Sanitary Inspectors, the subject chosen was the Milk Trade as affecting Public Health. The various diseases which have been communicated to man through the agency of milk were considered; but special stress was laid upon the question of the production of human tubercle as the result of the ingestion of the milk of tuberculous cows. It was contended that the same defective hygienic conditions which favour the development of this disease in man also favour its production in animals. Thus, deficient light and air, dampness of sheds, overcrowding, imperfect

ventilation, bad and insufficient food, and filthy surroundings were set forth as the conditions tending to lower health, to impair nutrition, and to increase susceptibility to tuberculosis both in man and in the cow; and all dairy-farmers, as well as those responsible for the administration of dairies, would do well to give heed to the warning which these facts convey. Amongst the remedies which Mr. North would suggest are a careful and systematic inspection of dairies and cattle by competent persons, and the requirement that all who sell milk within the area of a sanitary authority should possess a special licence granted by that authority, and capable of being withdrawn or suspended whenever sufficient reason exists for such action. It was further proposed that every producer and vendor of milk should be bound to report to such sanitary authority the occurrence of any disease amongst the cattle, or the persons of his household, or amongst those engaged in the preparation or distribution of the milk. Such an address cannot fail to lead to a more careful and intelligent performance of some of the more important duties devolving on sanitary inspectors.

INSANITARY AREAS IN CLERKENWELL.

IT is stated that Dr. Griffith, the medical officer of health for Clerkenwell, has made representations to the London County Council of no fewer than fourteen localities which, in his opinion, are insanitary, and should be done away with. The newly-appointed authority are likely to have their hands full, and it will need some nice discrimination to distinguish between demolition which should be undertaken by the vestries and district boards, and for which under Torrens' Act no compensation is given, and the improvement of sanitary areas which can only be effected by the London County Council under Cross's Act at considerable public expense. We trust the ratepayers will not begrudge the cost of the removal of these plague spots from London. It cannot be expected that the errors of the past can be undone without some burden being cast upon the present inhabitants of the metropolis, but it behoves the Council to see that we in our time are not guilty of mistakes that a future generation will have to redeem, for London must have spent in health improvements already not far short of two millions, in addition to the amounts which have been expended by private householders.

HOMICIDAL EPILEPSY.

AFTER recent expositions of this terrible malady, particularly after Lombroso's classic description of "epilessia sanguinaria," superintendents of continental infirmaries, one would think, might show greater circumspection in harbouring epileptics of apparently the harmless kind than seems to have been the case at Lovendegem, some two leagues from Ghent. Into the hospital there a Belgian, thirty-five years of age, had been admitted, suffering from epilepsy. He was allowed to associate in a common hall with old men mostly incurables, and little boys hopelessly rachitic, the surveillance of this motley assemblage being entrusted to some Sisters of Charity. How unequal these good ladies were to their task is evident from this—that notwithstanding his having shown symptoms of aggressiveness, notwithstanding that he had given vent to the strangest illusions, asserting that Brussels was in flames, that the king had been banished, that at Antwerp he had himself seen carts laden with bombs, and had added, "They have given me lion's flesh to eat; I feel my blood boiling with it," he was left pretty much to himself, and actually entrusted with a razor to shave himself with! On the night between the 29th and 30th ult., he rushed, armed with this weapon, into the hall, which, a sitting- and dining-room by day, was a dormitory by night, and began at once to deal murderous strokes at the sleeping inmates. He had already wounded several of the old men and children, who were too weak or too dazed to defend themselves, when the shrieks and general tumult brought the Sisters to the scene. In vain they tried to disarm him. They only succeeded in getting gravely wounded themselves. Meanwhile one of them sounded the alarm bell, and the madman was shortly thereafter overpowered and pinioned. As soon as practicable, he was conducted, under a strong escort, to Ghent, and there confined in the Guislain Lunatic Asylum, the place to which he should in the first instance have been taken. Twenty-seven is the number of those who were wounded by him, more or less severely, among the most serious cases being that of the Mother Superior, who sustained some deep razor cuts on the head, but nevertheless refused to quit her post till he had been secured. The tragic affair is, indeed, a loud warning to the superintendents of promiscuous hospitals, in which epilepsy is largely represented, never to admit or retain such cases when illusions of the aggressive kind are manifested. For these the well-appointed, thoroughly organised lunatic asylum is the only safe habitat.

ALLEGED INSANITARY STATE OF FROME.

IT appears that some of the leading inhabitants of Frome have appealed to the Local Government Board on account of the stench from the river, which is alleged to have been associated with cases of enteric fever and diarrhœa in Lullington. The chairman of the local board has evidently been deeply pained by this action, and in a speech which he delivered at its last meeting he set forth in some detail the action which had been taken, and which was still in progress, to remove the causes of complaint, and he, in the end, contended that the assertion that the local board declined to undertake the necessary remedial work, was uncalled for. He then resigned his position, and urged other members to do the same, on the plea that the vacancies could then be filled up by a number of the complainants, who were men of means, leisure, and position, and who would thus have an opportunity of displaying their zeal for the sanitary state of the town. Whatever the true state of Frome may be as regards its sewage disposal and other similar matters, no one can well object to the attitude of the chairman as undignified or unmanly.

THE CEREBRAL COMPLICATIONS OF EAR DISEASE.

DR. OTTO KÖRNER of Frankfort points out that all the cerebral complications of ear disease are more frequent on the right than the left side. Thus, of 31 cases of cerebral abscess, 18 occurred on the right side from disease of the right ear, and 12 on the left from disease of the left ear, and in one case there was abscess on both sides following disease of both ears. Similarly, of 61 cases of thrombosis of the lateral sinus, 35 were met with on the right side and 26 on the left. Of 23 cases of meningitis from ear disease, 17 affected the right side and 6 the left. Adding these together, we have a total of 115 cases, of which 70 were on the right side, 44 on the left side, and 1 bilateral. Körner traces this greater frequency on the right side to the fact that the groove for the lateral sinus passes further forwards and outwards into the petrous and mastoid bones on the right than on the left side. The bony wall separating the sinus from the mastoid antrum is therefore thinner on the right side. Added to this is the fact that in brachycephalic skulls the anterior cerebral fossa is considerably nearer the mastoid antrum than in the dolichocephalic. In the former cerebral complications of ear disease more readily ensue than in the latter.

OVERCROWDING OF THE PROFESSIONS IN GERMANY.

PROFESSOR W. LEXIS of Berlin has just published a pamphlet on the undue increase in all the learned professions. The Roman Catholic Theological Faculty alone fails to increase, but all the others do so to a most alarming extent. In medicine, Dr. Lexis considers 2675 the average number of students for the whole of the universities of the German Empire. This number was in 1877–78 reduced to 1774, but this reduction was soon made up, and in 1888–89 there were 2344 over the average. The average number of new licences to practise is, according to Dr. Lexis, 465, which number was not surpassed until 1886. The near future, however, offers most unfavourable prospects, as in proportion to the large increase of students, more than 800 new licences per annum must be expected. The German Association of Teachers in Realschulen had some time ago offered a prize of £50 for the best essay on the following question: "Why are the learned professions overfilled, and how can this evil be remedied?" The prize has now been awarded to two essays out of the seventy-six sent in, which will shortly be published together in book form under the title: "The Eagerness to enter the Learned Professions, and the Causes and Remedies of this Evil," by Fr. Pietzker, Superior Teacher at the Gymnasium of Nordhausen, and P. Freuttein, Professor at the Carlsruhe Gymnasium.

ENTERIC FEVER AT CHINLEY.

ACCORDING to a report by Mr. C. J. Bennett, medical officer of health to the Chapel-en-le-Frith rural sanitary district, enteric fever prevails in the village of Chinley under very aggravated circumstances. Indeed, such is the overcrowding by navvies that in one house thirteen persons were found to be living, of whom five slept in a room where there were enteric fever patients; and in another house, containing two bedrooms, eight persons shared these rooms, each of which was occupied by an enteric fever patient. The need for some temporary accommodation both for the sick and the healthy is a matter calling for immediate action.

POSTERIOR RHINOSCOPY.

THE difficulty of making a satisfactory examination of the naso-pharynx and posterior nares by posterior rhinoscopy is well recognised. In the current number of the *Centralblatt für Chirurgie* Dr. Dorn states that he has had great success in cases of operations in this region by placing the patient with the head hanging vertically back over the end of a table. He states that in this posture it is easy to introduce a mirror into the naso-pharynx and to see every part of it, and to manipulate instruments, such as forceps and snares, under the guidance of the mirror, just as is done in the case of the larynx. The danger of hæmorrhage during operations is greatly diminished when the patient is in this position.

SUCCESSFUL PROSECUTION OF QUACKS.

THE Medical Defence Union are to be congratulated on the success of their latest attempt to put down adventurers who trade upon the weakness of a certain portion of the public. They have brought six summonses against three unqualified practitioners of the "notorious advertising venerealist type" in Birmingham. One of them was C. F. Groom, who at the instance of the Union was struck off the rolls of the College of Surgeons last year. The summonses were taken under the 40th section of the Medical Act for the illegal assumption of a medical title. It is gratifying to learn that the full penalty was inflicted in all the cases, amounting to £124 14*s.* 6*d.* This, we are informed, is only the first stage, as the Defence Union intend to bring exactly similar actions in the County Court, under the Apothecaries Act.

CREASOTE TREATMENT OF PULMONARY TUBERCULOSIS.

DR. BOURGET has for the last three years treated tuberculosis of the lungs with large doses of creasote, thoroughly saturating the system with the drug, and he claims to have obtained most favourable results by his method. He prefers, however, guaiacol, as being less irritating to the stomach and as being therefore better borne than creasote. Dr. Bourget recommends the following prescription, substituting in winter cod-liver oil for the wine: Guaiacol, 2 dr.; tinct. quiniæ, 6 dr.; vin. Malacc., 40 oz. He begins with a tablespoonful at every meal, gradually increasing the dose until three tablespoonfuls are taken. Patients have in this way taken from twenty-two to thirty grains of guaiacol in the day without any trouble. Patients who could not take wine had the following enema administered: Guaiacol, 30 gr.; ol. amygd., 5 dr.; acac. pulv., 2½ dr.; cf. emuls. cui add. aqu., 40 oz.: misce; sig., "For four enemas." In winter Dr. Bourget prescribes: Guaiacol, 40 gr.; ol. jec. as., 6 oz.: misce; sig., "One tablespoonful at every meal." The patient is also rubbed with the following lotion before bedtime, on chest and back and in the axillæ: Creasote e. fag., 5 dr.; ol. jec. asell., 6 oz.: misce. He is then covered over with blankets. During day, and if possible by night also, the patient inhales from two to three drops of creasote by means of a nasal respirator.

STYRONE AS AN ANTISEPTIC.

DR. BEACH, of the Massachusetts General Hospital, says that, having studied the action of styrone (prepared from liquid storax and balsam of Peru) for eleven years, he can confirm the statement he then made as to its antiseptic properties (*Boston Medical and Surgical Journal*, Aug. 1st). It possesses the advantages of being (1) efficient, (2) non-poisonous, and (3) agreeable in odour. It may be used as a deodorant for ulcerating cancers in the form of a spray (styrone, 1 dr.; glycerine, 1 oz.; and water, 1 oz.), or applied to raw surfaces in the form of an emulsion, with olive oil, water, or vaseline. From experiments made by Dr. E. K. Dunham, Bacteriologist to the Massachusetts Board of Health, it is shown that the germicidal powers of styrone are considerable, as the development of such organisms as putrefactive bacteria, cholera bacilli, streptococcus pyogenes, and staphylococcus pyogenes aureus, was checked by certain proportions of styrone.

FOREIGN UNIVERSITY INTELLIGENCE.

Bahia.—Dr. Joaquim M. dos Santos has been appointed Assistant Clinical Professor of Children's Diseases.

Bonn.—Dr. Fritz Noll, assistant in the Botanic Institute in Würzburg, has been appointed Extraordinary Professor of Botany.

Innsbruck.—Dr. W. Roux of Breslau has been appointed to the chair of Anatomy.

Manilla.—It is thought probable that the Spanish Colonial Ministry, which is at present occupying itself with educational matters, will establish a university here.

Pavia.—Dr. E. Pestalozza has been recognised as *privat-docent* in midwifery and gynæcology.

Prague.—Professor Hueppe will commence a course of lectures on Bacteriology at the Hygienic Institute on Oct. 1st. Demonstrations on the same subject will also be held during the winter session.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Jacobsen, Professor of Chemistry in the University of Rostock, at the age of forty-nine.—Dr. Anthon Geuther, Extraordinary Professor of Chemistry in the University of Jena.—Dr. Anton Nuhn, Honorary Professor of Anatomy in the University of Heidelberg, whose name is connected with the glands discovered by him in 1845 in the apex of the tongue. Professor Nuhn was seventy-four years of age, and was, with the exception of Professor Hyrtl of Vienna, the oldest German anatomist.—Dr. Josef Tieftrunk of Prague, formerly body physician to the Emperor of Austria.—Dr. Franz Hellwig, the botanist attached to the German New Guinea expedition.—Dr. Wasseige, Professor of Midwifery in the University of Liège.

THE establishment of a Pasteur Institute at Rome for the prevention and cure of hydrophobia is now, after much friction, *un fait accompli*. The Senatus Academicus has granted the necessary accommodation, laboratories, and other accessories, while Professor Angelo Celli, director of the Hygienic Institute, who successfully started a similar establishment at Palermo, will be the working president. An effective staff of assistants is in course of being provided, so that in a few weeks the sufferers from bites of rabid dogs in Rome and the Agro Romano will be under no necessity of repairing, as heretofore, at the expense of the commune, to the Istituto Antirabbico at Naples.

STATE MEDICINE formed a special feature of the Medical Congress that opened its proceedings on the 1st inst. at Ancona. The Government was represented by the Under Secretary of State for Public Instruction, Signor Mariotti, who in an introductory address pointed to the immense progress Italy had made in hygiene, and gave official assurance that the sanitary reforms initiated under Signor Crispi's government would be energetically carried out. Count Orsi, a veteran hygienist, congratulated the Congress on the substantial aid its predecessors had given to Signor Crispi's policy.

IN Bonn the Geheime Medicinalrath, Professor Hermann Schaafhausen, has just received from his colleagues, students, and fellow-townsmen the honour of a public celebration of his Doctor-jubilee, having graduated at Berlin fifty years ago. Over and above Professor Schaafhausen's special work in the Medical School at Bonn, he has achieved a world-wide reputation in anthropology, the German Anthropological Society owing its origin almost entirely to him. Since 1853 he has been one of the most conspicuous advocates of the "Descendenz-theorie."

PROF. LAWSON TAIT of Birmingham will deliver the annual address, on "Ectopic Gestation," to the members of the Northumberland and Durham Medical Society, in the College of Medicine, Newcastle-on-Tyne, on Oct. 4th, at 6 P.M. The medical profession in the north of England is cordially invited. It is proposed that the members and their friends should dine together after the delivery of the address. Non-members wishing to be present at the dinner should write at once to Dr. Oliver, Newcastle-on-Tyne, the honorary secretary of the Society.

DR. J. S. CAMERON (medical officer of health for Huddersfield), Mr. A. E. Harris (medical officer of health for Sunderland), and Mr. Sweeting (medical superintendent of the Western Fever Hospital, Fulham) are the three candidates for the post of medical officer of health for Leeds. The final selection will be made at the next meeting of the Town Council.

BRITISH PHARMACEUTICAL CONFERENCE.

THE twenty-sixth annual meeting of the British Pharmaceutical Conference was held at Newcastle-on-Tyne, under the presidency of Mr. Charles Umney, F.I.C., F.C.S., in the early part of the present week. The occasion derived additional interest from this city having been the site of the first tentative meeting held in 1863. Mr. Henry Deane, Clapham, who then presided, set forth the advantages hoped for from the meetings of the pharmaceutical conference, speaking in very plain terms of ignorance, of intentional adulterations and substitutions, of recklessness in dispensing, of mystifications of formulæ, quack medicines, underselling, and other evils which should vanish as an honest love of truth, order, and precision took their place. The growth of the Conference was slow during the early years of its existence; but its usefulness in time became more fully recognised, and at present it numbers over 2000 members; and although the meetings have a very substantial supply of scientific papers, they are rendered attractive also by numerous social gatherings and excursions. This year the proceedings opened with a reception and conversazione at the College of Science on Sept. 9th, and on the following day Mr. Umney delivered his presidential address. After a brief retrospect of the work of previous years, and a graceful allusion to Newcastle as "our native heath," he passed at once to his theme, one of the articles of association agreed to in 1863—viz., "That one object of the Association should be to maintain uncompromisingly the principle of purity of medicine." In the course of his remarks upon this subject, he took occasion to refer to many questions of great interest to pharmacists—e.g., the fusion of the rival Pharmacopœias of London, Edinburgh, and Dublin into a national Pharmacopœia, the influence of the Sale of Food and Drugs Act, the relations between the Excise and the trade in medicines, and the more recent encouragement of original work by the establishment of the research laboratory by the Pharmaceutical Society. Mr. Umney's remarks upon the labour of compiling a pharmacopœia were full of sympathetic good sense. "There is, perhaps, no work upon which an expert has to use his judgment with so much tact and skill, so that he may keep both in touch and tune with the medical profession, the pharmacist, the drug merchant, and manufacturer, as when he is called upon to edit a national pharmacopœia." The recent prosecutions connected with sal volatile found ready recognition in the following words: "Is it not also desirable that pharmacists should co-operate with the Medical Council in their desire to make the British Pharmacopœia preparations legal for sale, and those of old pharmacopœias obsolete and illegal? In my opinion it is most desirable." The depressing influence upon the manufacturing pharmacy of this country hitherto exerted by the Excise regulations, and the various concessions which have recently been made, were dealt with in some detail. "Alcohol free of duty for medicinal purposes, or some facility to work with pure alcohol under supervision, is a most serious and urgent necessity. We are surely all desirous that we may not continue mere purveyors of potent remedies, but that we may be producers also, with a complete knowledge of the products we handle, whether as dispensers or traders." The concluding remarks upon the commercial value of science were of necessity brief, although they were sufficiently to the purpose. Mr. Umney evidently felt that science should be followed for its own sake rather than for any immediate prospect of reward. It might well be argued that, although the commercial results of applied botanical and chemical knowledge are great, they not uncommonly affect some clever financier, leaving the labourer the satisfaction inseparable from his work.

The "Year-book of Pharmacy," which is edited by Mr. Louis Siebold, F.I.C., F.C.S., will contain full details of the various papers read at this meeting, together with notes of the discussions.

The meeting of the British Pharmaceutical Conference is to be held next year in Leeds.

GORLESTON COTTAGE HOSPITAL.—The Gorleston Cottage Hospital, which has been in course of erection since May last, was opened on the 24th ult. by Sir H. Tyler, M.P.

HOSPITAL ATHLETICS.

THE past year has continued to show that increased amount of enthusiasm which has of recent years been a marked feature in nearly all branches of hospital athletics. There is, however, great room yet for improvement all round, and we would like to see students taking a greater interest in this part of their hospital world. A large number of them not only take no active part in athletics, but are too indifferent to interest themselves even in the prowess of their respective hospitals. Granted that in London men are placed somewhat at a disadvantage as regards athletics, still there is no excuse why they should give them up entirely and lapse into a state of listless apathy. Perhaps some shrink from athletics because in a few instances there are very evident examples of over-indulgence by some of their fellow-students, to the detriment of medical work; and teachers even have been known to condemn athletics *in toto* for the same reason; but surely such deductions are illogical. Of athletics, as of all other good things, one can have too much. Happily, however, we have only to glance at the lists of the various presidents and vice-presidents of our United Hospitals Athletic Club to see what a great interest is taken by the foremost men of our profession in this important branch of student life.

Fresh air and exercise are two very important ingredients of every practitioner's prescription for convalescent patients, but students are not compelled to cram up the minute details of these "drugs" for examination purposes; therefore they are neglected or almost wholly laid aside for the time being, and their value is only appreciated in after-life. Surely it is not making too much of a small matter to impress upon every medical student, freshman or otherwise, the necessity of keeping the body supplied with good health, as well as the mind with knowledge.

The United Hospitals Athletic Club showed still further development of activity this year by inaugurating during the summer a series of contests with their brother students at Edinburgh. These contests cannot fail to inspire greater enthusiasm amongst the adherents of both schools, and we confidently look forward to a growing interest in them year by year, and trust that the movement will spread amongst the other athletic clubs. It speaks volumes for the energy of our athletes that not only should such contests be made possible, but that the first contest should pass off so successfully and without a hitch. This meeting was held in Powderhall Grounds, Edinburgh, last July, in the presence of an enthusiastic and impartial gathering. No less than six of the ten events were most closely contested, two of them being dead heats. The United Hospitals were victorious by 7 points to 3:—100 yards: G. S. S. Marshall (U.H.) and R. A. Taylor (E.U.), dead heat. Putting the weight: W. G. West (U.H.) Long jump: R. G. Hogarth (U.H.). Half-mile: W. Kent Hughes (U.H.). 120 yards hurdles: S. Kent (U.H.). Hammer throwing: T. M. Donovan (E.U.). Mile: D. S. Duncan (E.U.). High jump: B. C. Green (U.H.) and F. Fitzgerald (E.U.), dead heat. 440 yards: W. Kent Hughes (U.H.). Three miles: A. Quennell. The Edinburgh students were most untiring in their efforts to make the trip as enjoyable as possible, and everything passed off in the happiest possible manner.

Though the Inter-hospital Athletic competition was threatened to be robbed of a great part of its interest on account of the certainty that was felt that the winners of last year would again prove victorious, yet the majority of the events were very keenly contested, and some excellent finishes were witnessed by the numerous spectators. The attendance has quite doubled during the last two years, and this has been in great measure due to the improvement in the music provided, and the executive of the sports must be assured that any efforts in a similar direction will be attended with success. The medals and cups were distributed by Mrs. Treves, and the President at the conclusion of the sports expressed his great interest in the day's proceedings and his hearty sympathy with all branches of athletics. St. Bartholomew's won with exactly the same number of events as last year—eight firsts, two seconds, and one third; they have now won the shield six times; Guy's and St. Thomas's each five times; King's and St. George's each three times, and London once. The records now stand as follows:—100 yds.: B. B. Connolly (Guy's), 10½ sec. 220 yds.: L. Stokes (Guy's), F. Little (St. Geo.), G. S. S. Marshall (Middlesex), 22½ sec. 440 yds.: T. A. Guinness (King's), 51½ sec. 880 yds.: W. Kent Hughes (St. Bart.'s), 2 min. 2½ sec. One mile: H. P. Ward (King's), 4 min. 36½ sec. Three miles: A. Quennell (St. Bart.'s), 15 min. 52 sec. 120 hurdles: J. G. Gravely (Guy's), 16¾ sec. Putting weight: W. G. West (St. Bart.'s), 38 ft. 3 in. High jump: A. E. Nuttall (St. Bart.'s), 5 ft. 7½ in. Long jump: R. G. Hogarth (St. Bart.'s), 21 ft. 2½ in. Throwing hammer: C. T. Dent (St. George's), 90 ft. 4 in.

The Rugby Football Cup again fell to St. Thomas's Hospital, who were regarded as certain to win, as they had improved upon their team of last year, which carried all before them. Winners of first round: Middlesex, St. Bartholomew's, St. George's, Guy's, St. Thomas's, London (byes). Winners of second round: St. Thomas's, Guy's, London, and Middlesex (a draw). Winners of third round: St. Thomas's, Middlesex. Winner of fourth round: St. Thomas's. St. Thomas's team: A. S. Gedge (back); E. E. Bromet, E. W. Senior, and N. P. Toller (three-quarter backs); P. Northcote and R. W. Ord (half-backs); J. H. Dewhirst, T. A. M. Forde, P. C. Gabbett, F. W. Goodhue, J. R. Harper, W. Jackson, T. W. Lambert, W. F. Milton, C. C. Moxon (forwards). The cup has been won by Guy's four times, by St. George's and St. Thomas's each three times, by St. Bartholomew's twice, and by London and Middlesex each once.

The cricket club did not perhaps show quite so much energy as last summer, for in several instances there were difficulties in getting a team together for united hospital matches; however, they acquitted themselves very fairly on the whole; the inter-hospital ties were remarkable for the early overthrow of Guy's and St. Bartholomew's, both of whom have fought it out in the final for several years past. London and St. Thomas's met in the last round this year to compete for possession of the cup, and the latter beat their opponents rather easily, P. Northcote batting very brilliantly for them, and making a "record" for the ties by scoring 201. Winners of first round: Charing-cross, St. Mary's, St. Thomas's, Guy's, London, and University College. Winners of second round: Charing-cross, St. Thomas's, and London. Winners of third round: London and St. Thomas's (a bye). Winner of fourth round: St. Thomas's. The most prominent players in the cup ties were Messrs. Wright (Charing-cross), Poynton (St. Mary's), Isaacs and Northcote (St. Thomas's), Simpson, Kyffin, and Webb (London). The cup has been held three times by Guy's, twice by King's, and once by St. Thomas's.

In the Association Football Cup ties Guy's had again to give way, and this time to their old antagonists St. Bartholomew's, who have striven against them in the final every year since the foundation of the club in 1884 with one exception. The final tie was the most interesting of the hospital competitions, and though St. Bartholomew's won by four goals, the game was very even, and for a long time the issue was uncertain. Winners of first round: Charing-cross and Westminster, Guy's, St. Bartholomew's, St. Thomas's, Middlesex, St. Mary's and London (byes). Winners of second round: Guy's, St. Mary's, St. Bartholomew's, and St. Thomas's. Winners of third round: Guy's, St. Bartholomew's. Winner of fourth round: St. Bartholomew's. The Cup has been won four times by Guy's, and once by St. Bartholomew's. St. Bartholomew's team: J. A. Coulby, goal; E. Henry and F. E. Fernie, backs; F. Lewaine, J. Cropper, and J. G. Faber, half-backs; R. G. Hogarth and F. J. Dixon, left; A. E. Carruthers, centre; A. W. Lemarchand and N. O. Wilson, right forwards.

The Rowing Club, although it has shown more signs of life, yet has not been able to increase the number of competitors for the Inter-hospital Cup. The ties were again won by St. Thomas's, who met St. George's in the final, and won rather easily in the end, though for the first part of the course the crews were very close together. All the eight rowing in the final were Cambridge University men. Winner of first tie: St. George's, beating Guy's and Middlesex. Winner of second tie: St. Thomas's, beating St. Bartholomew's. Winner of final: St. Thomas's. St. Thomas's crew: G. C. Richardson (bow), T. W. Lambert (2), H. T. Davis (3), T. Haydon (stroke), and P. C. Phillips (cox). In the second fours, Middlesex representatives beat those of St. Thomas's and St. George's

by four lengths. Winners of Cup: 1885, London; 1886–7, Middlesex; 1888–9, St. Thomas's.

The Cross Country Challenge Cup was won by St. Thomas's, the only other hospitals represented being St. Bartholomew's and St. Mary's. Winners: 1887, St. Bartholomew's; 1888–9, St. Thomas's.

The Lawn Tennis Cup was won by St. George's Hospital, who now hold it for the second year in succession.

The Shooting Cup did not evoke much interest, as only two hospitals entered—St. Thomas's and St. Bartholomew's. The former retained their possession of the Cup, winning by 7 points.

It is interesting to note the remarkable all-round success of St. Thomas's, who, it will have been seen, carried off the Rugby Football, the Cricket, the Rowing, the Cross-country, and the Shooting Cups.

We may add that the Medical Staff Corps Cricket Club have had a very successful season this summer. They have only suffered one defeat, and have scored a large number of wins. Surgeon Trask, Corporal Forsyth, and Sergeant Lumney have been the principal contributors to their success.

THE PARIS UNIVERSAL EXHIBITION.

(FROM OUR SPECIAL CORRESPONDENT.)

The International Congress on Forensic Medicine: Arsenic Poisoning; Instinctive Criminals; the Selection of Experts.

THREE more subjects were discussed by the Congress on Forensic Medicine which merit special attention—namely, Arsenic Poisoning, Instinctive Criminals, and the Selection of Experts for Medico-legal Questions. On the first question a report was presented by Dr. P. Brouardel and M. G. Pouchet. This report was based in the main on the great arsenic poisoning cases of Hyères and of Havre. The result of these observations, which in these two cases were made with great care, is, that whether the case is very acute and followed by death in a few hours, or, on the contrary, very slow and lasting for several weeks, the symptoms are almost identical. In the slower cases there are no new symptoms, but each symptom may be studied in detail. Unfortunately, in the latter case the doctor does not always perceive the link which connects the various stages. Thus, at Hyères the medical men first believed there was an epidemic of gastric fever, then an epidemic of influenza and spasmodic cough; then they thought it was an epidemic that recalled acrodynia; and it was not till symptoms of paralysis appeared that all these conjectures were set aside, and the analysis of the wine showed that it was a case of wholesale but accidental arsenic poisoning. Dr. Vidal of Hyères gave to the Academy of Medicine the following chronological record. On Feb. 8th, gastric trouble, diarrhœa; March 4th, cutaneous eruptions suggesting measles, spasmodic coughing, running from the eyes and nose as in influenza; March 31st, pains in the lower limbs, cutaneous hyperæsthesia; and, a few days later, paralysis. At Havre there were exactly the same symptoms, coming in the same order, but following each other more rapidly. The vomiting is characteristic, and different from other forms of poisoning. It comes frequently, suddenly, eight or nine times a day at Hyères, but causes only slight abdominal pain and leaves no sense of burning or of acute suffering. Constipation is as frequent as diarrhœa, and there is sometimes some blood with the motions. Having described the cutaneous eruptions, the troubles of sensibility, and the final paralysis, Dr. Brouardel remarked that death often ensued from cardiac complications. This was the case with both M. and Mme. D—— at Havre. This was also noticed in the case of Mme. M——, who died suddenly at the hospital, six weeks after she had ceased taking arsenic. The quantity of poison taken may be insufficient to cause death in a few days after its absorption. There may even be time enough for the elimination of the poison; but the anatomical modifications which have taken place in the hepatic and renal cellules, in the muscular fibres, remain after the arsenic has gone, and death results. The process, may be compared to that of the toxic effects of alcoheol when death from sclerosis of the liver or the kidneys takes place long after the patient has given up drinking. When symptoms suggest the possibility of arsenic poisoning, the doctor is often in a very embarrassing position, and it is best to secure more positive evidence than that arising from the suspicious character of the disease. He cannot easily take possession of soiled linen without awakening attention. On the other hand, it is quite usual, in medical practice, to ask for a specimen of urine, and this can be done without attracting much attention. Yet even in this the medical man must see to it himself, or else perhaps the water would be changed, and thus he would be entirely thrown off the scent. Dr. Brouardel quoted the important experience of Dr. Gaillard concerning a young girl suffering from eczema, who had been overdosed with Fowler's liquid. Forty days after she had ceased taking the drug, traces of arsenic were found in the urine. On the other hand, Dragendorff has demonstrated that arsenic can be detected in the urine a few moments after it has been taken. Thus a medical man can, by an easy analysis, protect himself against the very unpleasant consequences that would ensue from a mistake committed in so grave a matter. Also arsenic is to be found in the hair, of which, under some pretext, it might be possible to secure a sample. This was done at Havre, and one hundred grammes of Mme. D——'s hair were found to contain one milligramme of arsenic. Finally, if the patient should die, the presence of arsenic can be detected in a very positive manner in the spongy tissue of the bones. The substitution of arsenic for phosphorus in the bone tissue has been thoroughly demonstrated by M. Pouchet. Whether the arsenic is swallowed or injected, the result is the same, and is all the more marked when small and continued doses have been administered. With dogs and rabbits all traces of arsenic tested with the Marsh test entirely disappeared from the viscera in three weeks, but could be seen in the bones ten weeks after the last dose of arsenic had been given. The localisation of arsenic is less accentuated; the drug is more rapidly eliminated when given in such large quantities as to produce at once the symptoms of poisoning. M. Dubouchet related his experience, and completely confirmed all that had been said. He consequently insisted on the very great utility of analysing the bones of those who were suspected of dying from the effects of arsenic.

On the last morning Dr. Garnier read a most interesting and thrilling paper on his experience in his investigations with regard to the most atrocious crime committed by Joseph Lepage. The cynicism of this youthful murderer was most remarkable. When he had passed a sleepless night he indignantly protested that it was the want of exercise and not remorse which had prevented him from sleeping. Lepage longed for the day to appear before the Assizes Court. He gloried in the publicity and in the horror his self-glorification for the accomplishment of crime would create. He displayed consistently and throughout the most complete absence of moral sense. The awful cynicism of his remarks and his boastfulness impressed the judges, as they had impressed Dr. Garnier, with a doubt as to whether they were dealing with a person really responsible for his deeds. The law at present strikes criminals who are incapable of understanding their own moral culpability. On the other hand, the moral sense of society would revolt against the idea of mixing with the insane criminals suspected of being insane. This is all the more objectionable, as every day efforts are made to reduce the restrictive measures taken in asylums. Also as an asylum is a hospital, criminals, when cured, might claim to be released. He therefore demanded that special asylums for criminals should be created. This brought the Congress round again to the point at which the discussion on the simulation of disease had ceased. One delegate remarked how completely the character of a youth at the age of puberty sometimes changed. He took to tobacco, to absinthe, and fell into evil ways. Was this due to moral decadence or to physical change? Dr. Motet dwelt on the difficulties of treating those who were very gentle in their manner, and related the case of a man who entered the house of a poor workman. He pretended to be a police agent, and insisted on examining all the premises. He found a young child whom he declared was suffering from a dangerous, infectious malady, and compelled the frightened mother to pay him five francs to remove her. He then took the child to his own room, violated her, and turned her out into the street. This man did not attempt to escape the police, and was

not conscious of having done anything wrong. Dr. Motet described another case of a man released six times from the asylum, and who six times committed acts of violence. He claimed that special asylums existed in other countries, and should also be instituted in France. Dr. Vleminckx wanted to treat instinctive criminals with very strict repressive measures, but Dr. Garnier again inquired whether a man totally devoid of moral sense should be treated as a moral criminal. A delegate here protested that this would lead us to admit that, with a few exceptions, there are no criminals. All criminals are not instinctive criminals, but a great proportion might be described as such. He thought that all criminals should be sent to prison, and not to an asylum. M. Schmy said that, while refusing to admit the irresponsibility of all criminals, he doubted whether the actual methods were good. Lepage has a brother. The two brothers were brought up together under exactly the same influences; one is a thoroughly honest, hardworking fellow; the other is the most repulsive of criminals. Was there not some physical defect to account for this otherwise inexplicable moral difference? The speaker advocated the improvement and extension of the system of reformatories. M. Ortholou, a member of the Parisian bar and a magistrate, protested that we must not only punish where punishment can moralise; we must punish when evil has been done, and not punish only when punishment may do good. We must punish first and moralise afterwards, if possible. When convicting prisoners, it had never occurred to him to inquire if the criminal would understand the moral significance of the sentence. If we are in the presence of persons who are bad, let us punish first; if good results, all the better; but in any case we must punish. This very characteristic speech rather amused the budding disciples of Prof. Lombroso. Dr. Lacassague doubted whether Lepage was really ill. He described him as a "foul flower of Paris." Such characters could not be found in the country. This "fonfaron du crime" was of town growth; and, for his part, he was willing to assist in the process of natural selection produced by alcoholism, tuberculosis, &c., and sign with both hands the execution warrant of such a monster. If a criminal, when in prison, developed genuine signs of madness, then let him be sent to a madhouse. It would be complicated to have an asylum for the insane and another for the criminals supposed to be insane. He could not see who could decide to which of these asylums each case should be sent. Dr. Semal advocated prison asylums for instinctive criminals. In ordinary asylums the doctor would not impose prison rules; he would release the patient when cured without inquiring whether he was a criminal. Our asylums were now decked with flowers and cheered with the songs of birds. There were long walks and a semblance of freedom. A separate place was evidently needed for the violent. Are not certain persons criminals? For instance, epilepsy is sometimes associated with a splendid intelligence, but never with kindness of heart. An epileptic patient may be a genius; he will never be a philanthropist. The epileptic patient may therefore be gradually converted into a criminal. He may engender a sentiment of hatred, and under the influence of the malady may kill, not the first comer, but the person he hates. This tendency will not be suppressed in an asylum; his field of action only is restrained. The access is so sudden that even in an asylum a crime may be committed. Such a person must be specially watched, and the doctor should only have a patient before him. Crime in illness is the result of an accident. The persons who are really culpable are those who are round the patient and who fail to foresee the danger. We must not wait till the crime is committed. The Commission of the Belgian Academy of Medicine had reported in favour of the creation of a special central asylum for these sort of cases, and he thought this was a step in the right direction. Dr. Lacassague maintained that in asylums there was actually a well-established system of classification, and that criminals who were really ill were treated accordingly. Thus, for instance, at the celebrated trial of the anarchists at Lyons, when Prince Krapotkine was condemned to five years' imprisonment, the speaker was consulted, and one of the anarchists was allowed special treatment. Dr. Motet, in answer, alluded to the practice in England, which he considered superior to that of France. Dr. Garnier finally replied that there were persons who are sometimes in prison, sometimes in an asylum, and this proves that they are an intermediary type; mad, sane, sometimes a bit of both, and for these a prison asylum was necessary. The President now summed up the discussion by declaring that all evidently agreed that a special asylum should be created; that the Congress thought the present state of affairs in France was defective, but could not quite decide as to what particular class of persons should be admitted to the asylum prison.

The last afternoon of the Congress proved a field day for the lawyers. The report to be discussed had been drawn up by M. Adolphe Guillot, Judge of Instruction to the Tribunal of the Seine, and M. Demange, Advocate at the Court of Appeal, and also Judge of Instruction. The names of these two lawyers are associated with some of the most celebrated trials held of late years. The question they submitted in a joint report to the Congress related to the appointment of experts in such a manner as to best protect the interests of society and of the accused. During the Universal Exhibition of 1878 this matter had been considerably discussed. On Aug. 12th, 13th, and 14th, 1878, an International Congress was held on the subject at the Tuilleries. The President of the Congress, the Hon. Dr. Devergie, in a paper on experts, commenced with the following words:—"According to certain newspapers there is a question of giving to the accused, during the course of legal investigations, certain rights which they do not now possess, notably that of demanding the appointment of counter experts." These rumours, thus treated somewhat scornfully, were well founded, for three months after the Congress, the Minister of Justice, M. Le Royer, inspired doubtless by the debates of the Congress, brought forward in the name of the Government a Bill for the complete reform of the method of criminal investigation. This Bill states: "The question of investigations by experts gives rise to many complaints. With the actual system errors once committed are almost always irreparable. The defence is only acquainted with the result of the investigation made by experts a long time after it is terminated. The objects examined have either disappeared or have greatly altered. There is no means, therefore, of control, and yet too many precautions cannot be taken, for in serious crimes this investigation of the experts is often the principal evidence produced in the accusation." The above, the text of the preamble to the Government Bill, sets forth clearly what became the subject of debate at the Congress. Should the accused himself select an expert to carry out the investigation as against the expert appointed by the prosecution? This has been proposed by M. Goblet in his Parliamentary Report of Nov. 15th, 1881, and M. Bovier-Lapierre's of Jan. 20th, 1887. The whole tendency of modern reform—and this was especially noticeable in the Cahiers des Etats-Généraux of 1789—has been to strengthen the defence. Nevertheless, this proposed reform with regard to experts is not yet carried, though it has been discussed for some ten years. The reporters to the Congress inquired whether the proposed innovation would work. Would a medical man, eminent in science, like to find himself called the expert for the defence? The magistrate selects his experts among the most distinguished men of science, and it is an honour to be an expert. But the criminal, for his defence, might select the most discredited practitioner he could find, someone who would not scruple to employ any stratagem to obtain an acquittal. Should the law limit the right of choice, and compel the criminal to appoint only persons of high reputation? This would cause invidious distinction, and in a great measure destroy the very principle the reform seeks to establish. Yet, again, if the criminal has the free choice of an expert, this will expose the expert appointed by the magistrate for the prosecution to personal contact with individuals of bad repute. The reporters seem to think that a list of experts should be drawn up by scientific bodies, and the prosecution and the defence should alike select from this same list. Then another difficulty arises. If the expert for the defence is to be paid by the defence, he may receive a great deal more than the expert employed by the magistrate. This will open the door to accusations of partiality. To meet this difficulty, the Parliamentary Commission, in its report on the subject, proposes that the experts should receive the same sum each, and be paid by the State. This would be a first step towards gratuitous justice, and it is advocated on the ground that the law should be as anxious to save the innocent as to condemn the guilty. Again, should both experts have the same rights and facilities of investigation? The reporters thought that, however the experts were appointed, they would always act

according to their conscience, and, while not seeking to accuse, would not try to defend, but devote their energies solely to ascertaining the truth. The real advantage would be the control—the lessening of the individual responsibility. The experts should be colleagues, and not adversaries; and should mutually seek to render the task more easy. The advocate for the defence might, perhaps, be admitted at the post-mortem investigations. It has been said that the pupils at a clinique were the body guard of the patient. Perhaps, if there was a clinique of forensic medicine, the presence of students would be the most powerful guarantee of the thoroughness and the impartiality of the investigation. Based on these principles, the report concluded with no less than nine resolutions.

The report having been read, the discussion commenced. M. Vleminckx said that in Belgium the law did not sanction the presence of a counter expert. He urged that if experts for the defence were allowed, they certainly should not be paid more than those engaged for the prosecution. M. Chaudet, a barrister, had often heard it said that experts were always in league with the public prosecutor to prove the prisoner guilty. From outward appearance it would seem that this was the case, but the public only judged from the trials that actually take place. They forget or ignore the number of prosecutions that would have been instituted but for the fact that experts, having been consulted, reported unfavourably. Dr. Lacassagne thought that the presence at the Congress of M. Demange showed the bench recognised the necessity of reform. In large towns there was but little difficulty in securing the help of experts, but in rural districts the case was very different. Young medical men, in order to gain a reputation, sought to be involved in some legal cases; it served as an advertisement; but by the time they had acquired some experience in forensic medicine their private practice increased, and then they avoided the law courts as far as possible. In a town the best man is generally appointed; a second expert could only play an inferior part. Even now, when there is but one expert, the lawyer very often consults a second expert, and is thus able to put his finger on the weak point. Sometimes a counter opinion is produced at a trial which tends to degrade the professor and does not help to get nearer to the truth. Formerly, when an affair was very difficult or serious, the expert used to ask for an assistant, but a ministerial decree had put an end to such aids. Dr. Brouardel remarked that, right or wrong, there was at present a decided current of opinion in favour of rival experts, and urged that the Congress had better utilise, in the interests of justice, a current it could not resist. The best examinations, especially in cases of assault, were those done at once; and the second expert, the expert for the defence, would be appointed too late to be present at this first examination. Again, with regard to chemical examinations—in whose laboratory should they be carried out, in that of the defence or the prosecution? Evidently not in both, and there were but few places where a neutral laboratory could be found for both experts to work in it at one and the same moment. Then, in course of time, one practitioner would acquire a reputation as an expert for the defence and another for the prosecution. In small towns and rural districts there was already too much personal rivalry and antagonism between the local practitioners, and this might lead to outbreaks of a scandalous description before the law courts. Consequently, when the local experts did not agree, it would be necessary to have a court of appeal. M. Moreau thought that on whatever side the medical man might be retained, he would do equally well his duty. It would be better that the judge should at once appoint two experts, but give the defendant the right to object to one or the other of them, and if a good reason was given the judge might appoint someone else. The same oath should be administered to both experts, and they should both be paid by the State. Dr. Vibert thought experts should be specialists. If in the matter of health specialists were consulted, surely we should do the same for the cause of justice. Forensic medicine was not a good profession; still, some doctors followed it steadily for years, and measures should be taken to prevent the dismissal of such men solely to please the caprice of a new magistrate. Dr. Da Silva, the Spanish delegate, protested that the Congress should not only consider the difference between town and rural districts, but the difference between the different nations. If by appointing two experts the Congress meant that the experts were to take sides, this was altogether against the spirit and dignity of science. A medical man could have only one object in view, that of ascertaining the truth, and would degrade the profession if he allowed himself to be employed for any other purpose. It was not his mission to attack or to defend; he could only be called upon to give impartial testimony. M. Demange replied that the current in favour of contradictory debate was too strong, and this was accepted, with melancholy good humour, by Dr. Brouardel. For the dignity of science there should be no contradictions made before the tribunal. Though both sides were to choose experts, these could only be selected from a carefully-prepared list. Both experts would be equal; they would not issue rival, but, on the contrary, joint reports. If they did not agree, then they would have to ask for the creation of a superior or higher court. Dr. Da Silva did not like the idea of the defendant being able to refuse a specialist. The defendant could not refuse the magistrate or the prosecutor. Also in some special case, there might be only one man available, capable of acting as an expert. The defendant, by refusing to accept this expert, would throw the case into incompetent hands. M. Guillot thought the plurality of experts a good thing; he scorned all ideas of economy, and had himself sometimes employed two and three experts.

The Congress now proceeded to vote on the resolution. The first, to the following effect, was carried unanimously: "To guarantee the interests of society and of the accused in all medico-legal investigations, at least two experts shall be employed." The next sentence, "These shall be appointed by the judge," was carried by a small majority, for a large minority voted in favour of each side appointing its own expert. A resolution giving the defendant the right to object to one of the experts was lost. The difficulty of drawing up lists of experts was further discussed. Dr. Brouardel stated that, though 500 medical men came out every year from the Paris Faculty of Medicine, he did not think thirty were fit to act as experts. The facilities of communication reduced this difficulty, as experts could be brought from a distance. The Congress then voted: "That experts, except in special cases requiring special knowledge, shall be chosen from lists drawn up by the public powers and the scientific bodies selected for that purpose. The system of the plurality of experts imposed the constitution, at the seat of the Faculties of Medicine, of a Supreme Council of Forensic Medicine, which shall act as a high and final court of appeal." With respect to this latter resolution, it was pointed out that a similar institution had worked very well in Germany. At first there had been many cases referred to this court, but in a short time it was found to act as an excellent check against careless investigation, and now the cases sent up on appeal were not at all numerous. The Congress then carried the following resolutions without any further discussion and without any opposition:—"The Judge of Instruction should be present at the post-mortem &c., except in special cases, so as to supply to experts such information as may guide their researches. The lawyer retained for the defence may also be present, so as to point out to the experts the objections the defence may raise. A class comprising the general principles of legal medicine should complete in the law schools the study of criminal law. It would be well, so as to facilitate the study of legal medicine, if exception were made to the principle of professional secrecy in so far as to admit the presence of students at post-mortem examinations, unless this for special reasons is vetoed by the judge. It would be well to create in schools of forensic medicine or in law courts archives and collections of all articles which served as evidence, and which the magistrates and experts thought useful for the teaching of forensic medicine."

Having thus successfully disposed of the resolutions, Dr. Brouardel rose and thanked the foreign members of the Congress for their attendance and for the zeal they had displayed. If the Congress was not numerous, this was due to many other causes than that of indifference to the questions at issue. Their subject was very restricted; the number of persons capable of participating in the discussion was very limited. Nevertheless, though the Congress was not numerously attended, it had done its work in a remarkably business-like manner. The questions had been thrashed out with great perseverance, and the speeches were well to the point. No one had indulged in utopian flights; all had proved themselves intensely practical. When the volume which the full report of the proceedings would make was read, it would not fail to produce a good impression.

He therefore congratulated the Congress on its work, and declared its labours were concluded.

The members quietly left the large amphitheatre, and soon formed groups in the court, where, for the most part, they discussed which of the rival holiday resorts would be the best resting-place after the fatigues of so many Congresses.

Paris, Sept. 3rd.

THE BRITISH ASSOCIATION.

THE fifty-ninth annual meeting of the British Association commenced at Newcastle-on-Tyne on Wednesday, the 11th inst., twenty-six years having elapsed since the last meeting of the Association in that town. Sir Frederick Bramwell, F.R.S., the retiring President, having, in a few appropriate words, introduced his successor in the chair—Professor Flower, F.R.S.,—the latter proceeded to deliver his address. As chief of the Natural History Museum in London, the new President's speech was, as might be expected, directed to a subject upon which he is so great an authority—namely, the practical organisation of museums, and in an effective and lucid manner and at considerable length, he explained the true principles upon which collections of natural history objects should be arranged so as to bring them most easily and quickly under the eyes of the visitor, or within the scope of the scientific investigator. Overcrowding in museums was to be deprecated at all costs. The President urged that the first consideration in establishing a museum, large or small, ought to be that it should have some definite object or purpose to fulfil, and that the means should be forthcoming to maintain the museum in a suitable manner to carry out that purpose. Every specimen exhibited should be good of its kind, and all available skill and care should be spent upon its preservation, so as to render it capable of teaching the lesson it was intended to convey. At the conclusion of the address a hearty vote of thanks was accorded to Professor Flower. The President expressed his acknowledgment of the vote, and announced that the number of tickets issued for the present meeting of the Association amounted to 2228.

PRIZES AT THE MEDICAL SCHOOLS.

THE following is a list of the Prizes, &c., awarded at the various medical schools, for the Sessions 1888–89 :—

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—Lawrence Scholarship and Gold Medal: Bedford Pierce. Brackenbury Medical Scholarship: J. A. Hayward. Brackenbury Surgical Scholarship: C. H. Roberts. Senior Scholarship in Anatomy, Physiology, and Chemistry: A. G. Gave. Open Scholarships in Science, Senior: N. Soden; Junior, J. W. Pickering. Preliminary Scientific Exhibition: R. E. Scholefield. Kirkes Scholarship and Gold Medal: W. F. Oakeshott. Bentley Prize (Medical): F. W. Andrewes. Bentley Prize (Surgical): E. A. Edelsten. Hichens Prize: W. B. Jones. Wix Prize: A. B. Boyd. Harvey Prize: H. N. Armstead, A. S. Blackwell (equal); 3, H. O. Davy; 4, W. B. Jones; 5, N. Wilson; 6, C. E. Wheeler; 7, A. N. Weir; 8, H. J. Walton. Skynner Prize: B. Pierce, W. G. Willoughby (equal). Practical Anatomy, Junior: Treasurer's Prize—1, W. N. Soden; 2, H. S. Elworthy; 3, C. R. H. Crawford; 4, A. H. Buck; 5, J. O. March; 6, A. F. Stevens; 7, B. Ley; 8, A. D. Allen; 9, E. S. Humphry; 10, R. C. T. Stevens. Practical Anatomy, Senior: Foster Prize—1, N. Wilson; 2, W. B. Jones; 3, H. W. Armstead; 4, O. Holst; 5, A. N. Weir; 6, H. O. Davies, W. E. Miles (equal); 8, J. C. Baker; 9, F. Lewarne, B. G. Seton (equal). Shuter Scholarship: J. Attlee. Junior Scholarships: A. S. Blackwell; 2, H. W. Armstead; 3, A. A. Weir.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—Session 1888–89.—£125 Entrance Scholarship: Mr. A. R. Rendle. £65 Entrance Scholarship: Mr. G. E. Hale. £50 Entrance Scholarship: Mr. E. G. G. Little. The Acland Clinical Prize in Medicine: Mr. W. K. Fyffe. Pollock Prize in Physiology: Mr. N. Elrington. The Henry Charles Johnson Prize in Anatomy: Mr. H. A. Hinge. Assistant Demonstrator of Anatomy: Mr. H. A. Hinge.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Llewellyn Scholarship, certificate and £25, F. H. A. Taylor; Golding Scholarship, certificate and £15, C. H. J. Lockyer; Governors' Clinical Gold Medal, F. H. A. Taylor; the Pereira Prize, certificates and £5, T. E. Constant and A. H. Smith (equal). Senior Anatomy: Prize, A. W. W. Hoffman; certificates, W. M. Palmer, F. B. Rockstro, and H. W. J. Cook. Junior Anatomy: Prize, N. R. J. Rainier; certificates, J. W. Willson and E. Clowes. Senior Physiology: Prize, A. W. W. Hoffman; certificate (*proxime accessit*), H. W. J. Cook; certificates, D. C. P. Taylor, W. M. Palmer (equal), H. Gillett, J. P. Oliver, G. T. Bishop, and F. B. Rockstro. Junior Physiology: Prize, G. H. Hooper; certificates, W. May, E. R. Bull, J. W. Willson, K. Schelling, and W. R. Barrett. Practical Physiology: Prize, A. W. W. Hoffman: certificates, C. H. J. Lockyer, and W. M. Palmer, H. W. J. Cook, and J. Busfield (equal). Chemistry: Prize, G. H. Hooper; certificates, R. F. S. Wallace, H. H. Woods, A. W. Denny J. W. Willson, E. J. Rowbotham, P. C. Spark, and W. R. Barrett. Practical Chemistry: Prize, J. H. Day; certificates, W. M. Palmer, D. C. P. Taylor, and M. B. Foster, S. C. Bright (equal), A. V. Knowles, and S. B. Axford, A. W. W. Hoffman, J. P. Oliver, and C. C. Jeffery (equal). Osteology: Prize, W. R. Barrett. Medicine: Prize, H. S. Baker; certificates, H. J. F. Badcock and Charles Gibbs. Junior Practical Medicine: Prize, J. Busfield; certificate (special), G. F. Dickinson; certificate, H. S. Baker. Senior Practical Medicine: Prize, G. F. Dickinson; certificate (*proxime accessit*), Charles Gibbs. Surgery: Prize, G. F. Dickinson; certificates, A. Carling and E. L. Rowse (equal). Minor Surgery: Prize, S. F. Cheesman; certificates, J. W. Willson, E. J. Eedle, and J. H. Day. Therapeutics: Prize, F. H. A. Taylor; certificates, M. Dobbs and T. E. Constant. Materia Medica: Prize, A. W. W. Hoffman; certificate (special), C. H. J. Lockyer; certificates, G. T. Bishop, T. H. Lawrie, and H. D. Senior. Midwifery: Prize, J. F. Colyer; certificate, G. F. Dickinson. Forensic Medicine: Prize, F. H. A. Taylor; certificate, G. F. Dickinson. Pathology: Prize, G. F. Dickinson; certificate, J. Busfield. Dental Surgery: First prize, certificate, and £6 6*s.*, J. A. Mallett; second prize, certificate, and £4 4*s.*, E. Preedy; certificates, A. R. Colyer and W. May (equal).

GUY'S HOSPITAL MEDICAL SCHOOL.—The Treasurer's Gold Medal for Clinical Medicine, Ernest Henry Starling (Bombay). The Treasurer's Gold Medal for Clinical Surgery, Robert Devereux Mothersole (Colchester), and Ernest Henry Starling (Bombay), *proxime accessit*. Gurney Hoare Prize of £25 for Clinical Study, George Herbert Pennell (Exeter). Beaney Prize of 30 guineas for Pathology, Ernest Henry Starling (Bombay). Mackenzie Bacon Prize of £15 for Nervous Diseases, Arthur Henry Williams (Hayton, Yorks). Golding Bird Medal, and Prize of £20 for Methods of Diagnosis, Robert Devereux Mothersole (Colchester). Michael Harris Prize of £10 for Anatomy, John Henry Bryant (Ilminster). Fourth-year students: Alfred Parkin (Hightown, Yorkshire), first prize, £25; Robert Devereux Mothersole (Colchester), second prize, £10. Third-year students: Frederick William Hall (Sydney, New South Wales), £25. Second-year students: John Henry Bryant (Ilminster), £11 13*s.* 4*d.*; Bertram Whewell Hogarth (Morecambe), £11 13*s.* 4*d.*; Arthur Stanley Wohlmann (Hertford), £11 13*s.* 4*d.*, equal; William Gusterson Rogers (Kimberley, South Africa), certificate; Charles Edward Salter (Barnes Common), certificate. First-year students; Alfred Theodore Rake (Fordingbridge), first prize, £50; Thomas Holmes (Lancaster), second prize, £25; Edward Thomas Ernest Hamilton (East Dulwich), certificate; Tom Robinson Taylor (Methley, near Leeds), certificate; Charles Caldwell Elliott (Wynberg, Cape Colony), certificate; Harry Bacon Wilkinson (Southport), certificate; Arthur Mantel Daldy (Romford), certificate. Open Scholarship in Arts of 125 guineas, John Beresford Leathes (Rochester). Open Scholarship in Science of 125 guineas, William John Johnson (Shefford, Beds).

MIDDLESEX HOSPITAL MEDICAL SCHOOL.—Broderip Scholarships, for the best examination at the bed-side and in the post-mortem room :—First, H. A. Daniel; second, J. K. Clarke; *proxime accessit*, E. E. Norton. Governors' Prize: E. C. Long. Hetley Prize: E. C. Long. Exhibition in Anatomy (first year): A. E. Bodington. Lyell Medal: E. C. Long. Murray Medal and Scholarship: E. C. Long. Medicine: C. H. Fazan. Surgery: E. C. Long. Practical Medicine and Therapeutics: Evan Jones. Practical Surgery: E. C. Long. Practical Midwifery: W. H. Fosbery. Anatomy: T. Carwardine. Physiology: H. W. Gibson. Chemistry: F. E. Rock. Dissections: H. W. Gibson. Pathological Anatomy: H. W. Kendall. Midwifery: F. A. Alderson. Forensic Medicine: H. B. Shepherd. Materia Medica: E. W. Gregor. Practical Chemistry: F. E. Rock. Practical Physiology: E. H. Williams. Entrance Scholarships: First, H. Bankes Price; second, A. E. Bodington; exhibition, A. Jones.

LONDON HOSPITAL MEDICAL COLLEGE.—Entrance Science Scholarships: £60 scholarship, F. J. Wollacott; £40 scholarship, R. G. Kirton. Buxton Scholarships: £30 scholarship, W. S. H. Sequiera; £20 scholarship, A. Russell. Clinical Medicine: £20 scholarship, given jointly by the House Committee and the Medical Council, G. F. Oldham; honorary certificate, F. R. Riley. Clinical Surgery: £20 scholarship, given jointly by the House Committee and the Medical Council, J. A. Offord; honorary certificates, W. C. Aylward and E. J. Hicks. Clinical Obstetrics: £20 scholarship, given jointly by the House Committee and the Medical Council, W. C. Aylward and F. J. W. Porter (equal); honorary certificate, F. R. Riley. Duckworth Nelson Prize: Prize, £10, E. J. Hicks; honorary certificates, G. F. Oldham and W. C. Aylward. Letheby Prize: £30 prize for proficiency in Chemistry, E. E. Blomfield; honorary certificate, S. H. Rayne. Anatomy, Physiology, and Chemistry: £25 scholarship given by the Medical Council, E. E. Blomfield; honorary certificate, J. Mulvany. Anatomy and Physiology: £20 scholarship, given by the Medical Council, H. L. Barnard; honorary certificate, W. S. H. Sequiera. Dressers' Prizes for Zeal, Efficiency, and Knowledge of Minor Surgery, given by the House Committee: £15 prizes, E. E. Blomfield and ——; £10 prizes, J. Mulvany and T. Hirsch; £5 prizes, —— and ——. Practical Anatomy Prizes: £5 prize, J. McNeal; £5 prize, J. Mulvany; £5 prize, J. R. Preston; £5 prize, H. L. Rutter.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Entrance Scholarship in Natural Science of 75 guineas, C. T. Parsons; 75 guineas, J. S. Collier; 50 guineas, F. J. Poynton; 50 guineas, J. E. B. Wells. University Entrance Scholarship of 50 guineas, G. E. C. Pritchard, B.A. Oxon.; £50, E. H. Colbeck, B.A. Cantab., G. Wilkinson, B.A. Cantab., W. W. Simmons, B.A. Cantab. Classical Scholarship of value of £50, W. Charrington Wood. Mathematical Scholarship of value of £50, T. T. Brunyate, Christchurch, Oxford. Summer Session, 1888: Second year: Midwifery—L. Rogers, prize; G. M. Winter, certificate of honour. Medical Jurisprudence—G. M. Winter, prize; H. L. Hatch, L. E. Parkhurst, and L. Rogers (equal), certificates of honour. First year: Materia Medica—G. G. Clarke, prize; R. B. Manning, D. Maddock, F. J. Worth, A. V. Crossing, and E. A. Nathan, T. E. Smurthwaite (equal), certificates of honour. Botany—R. Gilmour, prize; C. A. Lane, certificate of honour. Chemistry—E. W. Simmons, prize; R. B. Manning,[1] and F. H. Daynes, E. A. Nathan, H. W. Clarke, T. E. Smurthwaite (equal), certificates of honour. Histology—H. G. Lane-Pryce and J. O. Symes, prizes; E. A. Nathan, certificate of honour. Winter Session, 1888-9: Third year: Medicine—Prize not awarded; L. Rogers and G. Wilkinson (equal), certificates of honour. Surgery—L. Rogers, prize; G. Wilkinson, certificate of honour. Practical Surgery—L. Rogers, prize; G. Wilkinson, certificate of honour. Pathology—L. Rogers, prize; G. Wilkinson, certificate of honour. Third and fourth years: Clinical Medicine—C. G. Mack, prize; A. B.

Batley and C. H. Powers, certificates of honour. Clinical Surgery—J. J. Knox, prize; A. H. Bindloss (*proxime accessit*), and C. G. Mack, G. M. Winter (equal), certificates of honour. Prize in Ophthalmology of £10 10s.—J. Griffith, prize; ditto (prize divided)—H. A. Kidd and R. B. Ferguson (equal). Pathology Scholarships—A. C. Rendle and L. Rogers, prizes. Second year: Anatomy—J. R. Evans, prize; J. O. Symes and F. J. Worth, certificates of honour. Physiology—C. A. Lane, prize; E. A. Nathan, R. B. Manning, and J. O. Symes, certificates of honour. First year: Anatomy—C. T. Parsons, prize; J. S. Collier, certificate of honour. Physiology—C. T. Parsons, prize; J. S. Collier, certificate of honour. Chemistry—H. Roberts, prize. Special prizes, 1888: Students of first year, for general proficiency in Anatomy, Physiology, Materia Medica, and Chemistry—R. B. Manning. Students of second year, for general proficiency in Anatomy, Physiology, Midwifery, and Medical Jurisprudence—G. M. Winter. Students of third year, for general proficiency in Medicine, Surgery, Pathology, and Operative Surgery—R. H. Cole. Prosectors—N. E. Norway and F. J. Worth. Special prize for best Drawings and Note-book in the Physiology Classes—Mander Smyth. ¶ Obtained number of marks equal to the prize winner.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Summer Session 1888.—First-year students: J. H. Fisher, college prize, £15, and certificate of honour; C. S. Wallace, college prize, £10, and certificate of honour; W. B. Winston, certificate of honour; W. Watkins-Pitchford, certificate of honour; W. P. Purvis, certificate of honour; C. S. Jaffé, certificate of honour; P. C. Gabbett, certificate of honour; W. G. Sutcliffe, certificate of honour; W. L. Wainwright, certificate of honour. Second-year students: A. King, college prize, £15, and certificate of honour; D. F. Shearer and E. T. Whitehead (equal), college prize, £10, and certificates of honour. Third-year students: A. Wentworth Jones, college prize, £15, and certificate of honour; C. C. Heywood, college prize, £10, and certificate of honour; A. C. Lankester, certificate of honour.—Winter Session, 1888-89:—Entrance Science Scholarships: E. M. Hainworth, scholarship, 125 guineas, and certificate of honour; E. Smith, scholarship, £60, and certificate of honour. First-year students: E. Smith, the William Tite Scholarship, £27 10s., and certificate of honour; W. G. Sutcliffe, college prize, £20, and certificate of honour; C. Planck, college prize, £10, and certificate of honour; L. V. Tebbs, certificate of honour; H. M. Moore, certificate of honour; J. W. Hewett, certificate of honour; G. J. Arnold, certificate of honour; K. B. J. Vickers, certificate of honour; W. Redpath, certificate of honour; C. L. B. Stares, certificate of honour; C. W. Grant-Wilson, certificate of honour; E. M. Hainworth, certificate of honour; E. Miskin, certificate of honour. Second-year students: J. H. Fisher, the Musgrove Scholarship, £38 10s., and certificate of honour; C. S. Wallace, college prize, £20, and certificate of honour; W. B. Winston, college prize, £10, and certificate of honour; A. Banks, certificate of honour; W. Potter, certificate of honour; J. G. Turner, certificate of honour; C. Latter, certificate of honour; W. A. Bowring, certificate of honour; A. M. Campbell, certificate of honour; W. Watkins-Pitchford, certificate of honour; W. E. Drake and W. P. Purvis (equal), certificates of honour; W. L. Wainwright, certificate of honour; C. S. Jaffé, certificate of honour; T. W. Hicks, certificate of honour. Third-year students: J. J. Perkins, college prize, £20, and certificate of honour; W. H. Millar, college prize, £15, and certificate of honour; A. King, college prize, £10, and certificate of honour; E. T. Whitehead, certificate of honour; C. P. Lovell, second tenure of the Peacock Scholarship. Surgery and Surgical Anatomy: A. C. Lankester, the Cheselden medal; A. F. Stabb, T. W. Lambert, and H. W. Nix, special mention and certificates of honour. Practical Medicine: S. G. Toller, the Mead medal; A. W. Musson, T. A. Dukes, and A. Wentworth Jones, special mention and certificates of honour. For general proficiency and good conduct: A. F. Stabb, the Treasurer's gold medal.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—Honours List (Summer Session).—Materia Medica: W. H. A. Tebbs, prize; H. Wolseley-Lewis, H. A. Stonham, T. W. Bailey, W. B. Winckworth, certificate. Practical Chemistry: W. H. A. Tebbs, prize; T. W. Bailey, H. A. Stonham, W. B. Winckworth, H. H. Mills and E. C. Drake (equal), G. Norman, J. A. L. Campbell and H. W. Lewis (equal), certificate. Histology: A. S. G. Bell, prize; T. W. Bailey, certificate. Pathology: E. J. Pritchard and P. M. Yearsley (equal), prize. Midwifery: P. M. Yearsley, prize; E. J. Pritchard, certificate. Forensic Medicine and Toxicology: P. M. Yearsley, prize. Honours List.—Entrance Scholarships (Winter), H. Witham, £80; (Summer) E. Spencer, £100; E. Nowell, £40; H. M. Dowler, £40. Treasurers' Prize for first winter subjects, value 10 guineas, W. H. A. Tebbs. President's Prize for second-year subjects, value 20 guineas, A. S. G. Bell, and H. W. Lewis, J. B. Byles, *prox. accesserunt*. Bird Prize and Medal, value £15, P. M. Yearsley. Chadwick Prize, value 20 guineas, not awarded. Clinical Medicine Prize, value £5, Ll. Lewis. Clinical Surgery Prize, value £5, not awarded. Class Prizes and Certificates.—Anatomy—Senior Class: J. B. Byles, H. W. Lewis, A. S. G. Bell, H. A. Stonham; Junior Class: W. H. A. Tebbs. Physiology—Senior Class: H. A. Stonham, A. S. G. Bell, J. B. Byles and H. W. Lewis (equal); Junior Class: W. H. A. Tebbs. Histology—Senior Class: A. S. G. Bell, H. W. Lewis, J. B. Byles, H. A. Stonham. Chemistry—Junior Class: W. H. A. Tebbs, prize. Medicine—Senior Class: A. S. G. Bell, prize. Surgery—Senior Class: P. M. Yearsley, prize.

UNIVERSITY COLLEGE, LONDON.—Atkinson Morley Surgical Scholarship: W. W. H. Tate. Atchison Scholarship: T. L. Pennell. Sharpey Physiological Scholarship: W. D. Halliburton, M.D., B.Sc. Fellowes Clinical Medallists, 1888, Summer Session: M. G. Foster, W. Gordon, W. W. H. Tate, and H. H. Horden; Medallists, 1889, Winter Session: T. L. Pennell, P. R. Dodwell, Douglas Drew, and E. R. C. Earle. Liston Gold Medallist: T. L. Pennell. Alexander Bruce Gold Medallists: L. E. Hill and T. L. Pennell. Tuke Silver and Bronze Medallists: L. E. Hill and T. L. Pennell. Cluff Memorial Prize: A. Griffith. Erichsen Prize: W. S. Routledge.

BRISTOL MEDICAL SCHOOL.—Chemistry: Prize, V. Moxey; certificates, T. M. Carter, H. B. Wilson, E. A. Duffield, C. W. J. Brasher, and J. Freeman. Practical Chemistry: Prize, H. B. Wilson; certificates, T. M. Carter, V. Moxey, and J. Freeman. Botany: Prize, H. B. Wilson. Practical Physiology and Histology: Prize, A. W. Peake; certificates, E. G. C. F. Atchley, H. B. Wilson, T. M. Carter, and J. H. Parsons. Materia Medica and Therapeutics: Prize, A. W. Peake; certificates, T. M. Carter, J. Freeman, and V. Moxey. Obstetric Medicine: Prize, F. H. Edgeworth; certificate, B. G. M. Baskett. Practical Surgery: Prize, H. S. Jackson; certificates, F. E. Scrase, S. H. Lucy, and B. G. M. Baskett. Pathology and Morbid Anatomy: Prize, E. G. Hall; certificates, T. C. Grey, H. F. Ormerod, F. H. Edgeworth, C. A. Griffiths, and G. F. Bergin. Practical Pathology and Morbid Anatomy: Prize, T. C. Grey; certificates, C. A. Griffiths, H. L. Ormerod, F. H. Edgeworth, E. G. Hall, and G. F. Bergin. Medical Jurisprudence: Prize, T. C. Grey; certificates, C. A. Griffiths, H. L. Ormerod, J. S. Griffiths, and R. H. Norgate. Junior Classes of Anatomy and Physiology: Prize, W. H. Ligertwood. Junior Class of Anatomy: certificates, W. R. Hadwen, J. C. Smyth, F. C. Fosbery, M. F. Staniland, and R. H. Chilton. Junior Class of Physiology: certificates, W. R. Hadwen and J. C. Smyth. Senior Class of Anatomy: Prize, J. H. Parsons; certificates, A. W. Peake, T. M. Carter, C. W. J. Brasher, V. Moxey, and P. H. M. Star (equal). Senior Class of Physiology: Prize, A. W. Peake; certificates, J. H. Parsons, T. M. Carter, V. Moxey, C. W. J. Brasher, and J. Freeman. Class of Practical Anatomy: Prize, T. M. Carter; Prosectors' certificates, C. W. J. Brasher, T. M. Carter, and A. W. Peake. Class of Medicine: Prize, T. C. Grey; certificates, C. M. Vernon and C. Wintle. Class of Surgery: Prize, H. S. Jackson; certificates, T. C. Grey and C. Wintle. Class of Hygiene: Prize, H. L. Ormerod; certificates, E. G. Hall and R. H. Norgate.

BRISTOL ROYAL INFIRMARY.—Entrance Scholarship (of the value of 35 guineas): W. H. Ligertwood. Entrance Scholarship (of the value of 10 guineas): E. A. Duffield. Suple Medical Prize (a gold medal value 5 guineas, and 7 guineas in money) for fourth-year Students: H. L. Ormerod. Suple Medical Extra Prize of 7 guineas: E. G. Hall. Suple Medical Extra Prize of 3 guineas: C. M. Vernon. Suple Surgical Prize (a gold medal value 5 guineas and 7 guineas in money), for third-year Students: C. Wintle. Clark Prize (of the value of 15 guineas), for that Student of the Infirmary who has most distinguished himself in the class examinations open to Students in their third year at the Medical School: H. S. Jackson. Tibbits' Memorial Prize (of the value of 9 guineas), for proficiency in Practical Surgery: F. Lace. Crosby Leonard Prize (of the value of 7 guineas), for proficiency in Clinical Surgery: F. H. Edgeworth. Pathological Prizes (each of the value of 3 guineas): F. Dymoke, G. H. Skinner, C. B. Gratte, F. Lace, J. H. Fardon, and H. J. Thomas.

BRISTOL GENERAL HOSPITAL.—Lady Haberfield Entrance Scholarship (of the value of 30 guineas): C. W. J. Brasher. Clarke Scholarship (of the value of £15), for proficiency in Surgery, open to Students of the third year: B. G. M. Baskett. Sanders Scholarship (of the value of £22 10s.), for proficiency in Medicine, Surgery, and Obstetric Medicine, open to Students of the fourth year: G. F. Bergin, C. A. Griffiths (equal). Martyn Memorial Pathological Scholarships (each of the value of £10), for proficiency in Pathology and Morbid Anatomy: April, R. F. E. Austin; October, G. F. Bergin, C. A. Griffiths (equal). Committee Gold Medal (awarded to the Student of the fourth year who has most distinguished himself during his career at the Hospital and the Medical School): T. C. Grey. Committee Silver Medal (awarded to the next most distinguished Student of the fourth year): G. F. Bergin.

LEEDS SCHOOL OF MEDICINE.—Anatomy: Prize, C. A. Dixon; certificate, J. L. Iredale. Anatomy (Junior): Prize, J. M. Nicol; certificate, T. L. James. Physiology: Prize, C. A. Dixon; certificates, J. L. Iredale and J. G. Rowell. Physiology (Junior): Prize, J. M. Nicol; certificates, E. W. S. Hughes and T. L. James. Practical Physiology: Prize, C. A. Dixon; certificate, C. Waddington. Chemistry: Prize, J. M. Nicol; certificate, A. W. Scott. Practical Chemistry: Prize, J. G. Rowell; certificate, H. Keighley. Materia Medica: Prizes, H. Walker, J. G. Rowell; certificates, C. Forsyth, C. Benson, C. A. Dixon, and A. Ellison. Midwifery: Prize, J. J. Mitchell; certificate, C. Benson. Gynæcology: Prize, J. G. McCandlish; certificate, R. Wilkinson. Surgery: Prize, Jas. Stalker; certificate, C. Benson. Medicine: Prize, J. J. Mitchell; certificate, A. E. Sellers. Thorp Prizes in Forensic Medicine: First, T. P. Braim; second, C. Forsyth and J. J. Mitchell. Thorp Prize in Hygiene: J. Stalker. Hardwick Prize: H. E. Hick.

UNIVERSITY COLLEGE, LIVERPOOL.—Holt Tutorial Scholars: G. W. Chaster and J. Gould. Lyon Jones Scholar (Senior): V. B. Bennett. Lyon Jones Scholar (Junior): B. Stahlknecht. Derby Exhibitioner: J. Gould. Torr Gold Medallist: J. Evans. Junior Gold Medallist: F. J. Woods.

CARMICHAEL SCHOOL OF MEDICINE.—Carmichael Scholarship: V. K. Cooke. Mayne Scholarship: E. Kennedy. Medical Jurisprudence: E. Du Cane. Midwifery: R. Creighton. Physiology: J. Dowling. Botany: W. Allen. Practical Chemistry: Ethel Joel. Practical Histology: J. H. Farmer. Anatomy (first year): W. Black, F. Rogers, W. H. Anderson; (second year): J. Dowling, J. H. Farmer, R. T. Moynan. Chemistry: G. Griffith, W. Black, and E. Hamilton.

LONDON SCHOOL OF DENTAL SURGERY.—Saunders Scholar, A. W. W. Hoffman; Ashs' Prize, K. Schelling. Certificates, J. H. Day, A. W. W. Hoffman. Mechanical Dentistry: First prize, Mr. J. H. Day; second prize, A. W. W. Hoffman; certificates, C. F. Badcock, J. Dunlop, V. Knowles. Metallurgy: First prize, A. W. W. Hoffman; second prize, S. C. Bright; certificates, J. A. Mallet, J. H. Day. Prize in Operative Dental Surgery: First prize, J. B. Hordern; second prize, G. G. Spray; certificates, F. Burton, J. Dunlop. Dental Anatomy: First prize, A. W. W. Hoffman; second prize, E. J. Preedy; certificates, W. May, J. H. Day, K. Schelling. Dental Surgery: First prize, A. W. W. Hoffman; second prize, E. J. Preedy; certificates, E. R. Bull, T. Coysh, L. C. Tomlyn, J. H. Day. Students' Society prize, F. A. Harsant.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—Rymer Medal: J. N. Dunlop. Dental Anatomy: R. S. Faro, prize, and J. N. Dunlop, prize (equal); E. A. H. Field, certificate. Dental Mechanics: S. Keele, prize; J. N. Dunlop, certificate; A. Prager, certificate. Metallurgy: A. Moore, prize; F. E. Cutts, certificate. Dental Surgery: J. N. Dunlop, prize; W. Rushton, certificate, and F. T. Haycroft, certificate. Operative Dental Surgery: Prize and certificate not awarded. Dental Materia Medica: Prize not awarded; F. T. Haycroft, certificate; S. Keele, certificate. Elements of Histology: S. Keele, certificate. Mechanical Work: Prize not awarded. Student's Society: R. S. Faro, prize.

SCHOOL OF MEDICINE, EDINBURGH.—Class of Chemistry, Surgeons' Hall: Class Medals, (1) John Lister Armitage, Thirfield, Yorkshire; (2) Adam Dryden, Edinburgh; (3) Charles Allan Brough, London, and Alexander Elder, Edinburgh. Class of Practical Chemistry: Class medals, Charles Allen Brough, London; George Henry Peake, Madagascar; George Stephenson Shirt, India. Class of Medical Jurisprudence: Junior Division, (1) M. A. Bamby, Bangalore, India; Senior Division, O. R. Lewis, London, and Douglas Stanley (equal). For Best Notes of Dissection in Class: (1) Douglas Stanley. Class of Public

Health: Junior Division, (1) William Polson; Senior Division, P. C. Smith, Durham. For Best Essay on Abattoirs: (1) A. K. Melville. Class of Clinical Surgery, Royal Infirmary: Senior, (1) W. J. H. Cumming; Juniors, (1) F. J. L. Lorimer, and (2) F. J. Bonnalie (equal). Class of Practice of Physic, 27, Nicolson-square: Senior, (1) C. N. C. Wimberley, Inverness; Junior, (1) R. D. Rudolph, Nova Scotia. Class of Materia Medica and Therapeutics, Minto House: Silver medal, Joseph Eugene, Horace Gentil, Mauritius. Class of Practical Materia Medica, including Practical Pharmacy: Silver medal, Robert Scott, M.A., Melbourne. Class of Chemistry: Medal, T. A. Coward, Carlisle; second prize, William L. Dickson, Edinburgh; third prize, George Edward Gabites, New Zealand. Class of Chemistry, 41, Chambers-street: Silver medal, H. W. Bolam, Leith. Class of Practical Chemistry: Medal, George W. Pollard, Taunton. Class of Anatomy, Minto House: Senior prizeman, F. R. Harriott, Jamaica; Junior prizeman, Adam Dryden, Edinburgh. Class of Practical Anatomy: Senior Gold Medallist, Robert J. Ashton, Calcutta; Silver Medallist, R. M. Horne, Slamannan; Second-year men, Silver Medallist, J. M'Clymont, Kirkcudbrightshire; First-year men, Division A., Silver medal, D. H. Beegling, New South Wales; Division B., Silver medal, Adam Dryden, Edinburgh. Class of Practice of Physic, Surgeons' Hall: Medals, (1) A. J. Prentice, Lanark; (2) W. Polson, Sutherlandshire. Dental Students: Medal, F. J. Bonnalie, Chester. Class of Principles and Practice of Medicine, Park-place: Senior Division, (1) William Everett, Kettering; Junior Division, (1) Thos. J. Burton, Edinburgh. Class of Materia Medica and Therapeutics, Surgeons' Hall: Medallist, Edward Hughes, North Wales. Special Examination in Therapeutics: Prizeman, John Cuthbertson Walker, Dumbartonshire. For Assistance in the Work of the Class: Special prize, Charles Edward Lester, New South Wales.

EDINBURGH.—Class of Systematic Surgery, 27, Nicolson-square.—Senior Division: Prize, Rhys Davies, South Wales. Junior Division: (1) Arthur E. Shepherd, Adelaide, Australia. Practical Class.—Senior Division: Prize, David Westwood, Perthshire. Junior Division: Prize, Arthur E. Shepherd, Adelaide. Class of Systematic Surgery, Surgeons' Hall.—Senior Division: (1) Charles G. MacLeod, Fife. Junior Division: (1(F. J. Bonnalie, Chester. Class of General Pathology.—Silver medals: William Wood, Yorkshire, and Fred Graham, Monmouth (equal). Bronze medal: Frank T. Foster, New Zealand. Class of Practical Pathology.—Bronze medal: John Maclaren, Edinburgh. Class of Theoretical Botany, Minto House.—Medallist: J. Owens. Class of Practical Botany.—Medallist: J. Kerr. Class of Anatomy, Surgeons' Hall.—Gold Medallists: J. B. Davies, Lampeter, and G. V. Lockett, Jamaica (equal). Systematic Anatomy.—Seniors: Medallist, Henry Taafe, Londonderry. Juniors: Medallist, C. A. Brough, London. Practical Anatomy.—Juniors: Medallists, (1) W. Fitzgerald, New Zealand, and (2) C. A. Brough, London. Practical Anatomy (second year).—Medallists: Gabriel Barbeau, Mauritius, and L. G. Fink, Calcutta (equal). Practical Anatomy.—Seniors: Medallists, (1) J. C. Williams, Rhyl, and (2) W. B. Macleod, Edinburgh. Class of General Pathology, Nicolson-square.—Certificate and first prize, W. F. Robertson, Roxburghshire; certificate and second prize, M. A. Bamby, Bangalore. Class of Diseases of the Tropics and Climatology, Park-place.—First prize, E. C. Foston, Penang; second prize, George A. Wolfendall, Tutbury. Class of Systematic Surgery.—Seniors: First-class honours, (1) E. G. Pilgrim, Barbadoes; second-class honours, John Maclaren, Edinburgh. Juniors: First-class honours, (1) Charles Martin, Middlesborough; second-class honours, (1) Arthur T. Kember, S. India. Class of Midwifery and Diseases of Women.—Prizes, (1) William Paterson, Ayrshire; (2) James Currie, M.A., Kelso; (3) G. Trafforde Tuke, Edinburgh. Class of Institutes of Medicine, Surgeons' Hall.—Medals and Certificates of Merit, (1) Frederic J. Hare, Darlington; (2) Henry J. Glover, Goalhouse-on-Fleet; (3) Charles D. Sutherland, Aberdeenshire. Class of Practical Physiology.—Medal and certificate, Alexander Gibson Clark, Forfarshire. Class of Surgery, Chambers-street.—Prizes, (1) E. Forsyth, Berwickshire; (2) James Spencer, Glasgow. Class of Systematic Surgery, Minto House.—Senior Division: Prize, W. M. Parham, Bath; Junior Division: Prize, F. C. F. Foster, New Zealand. Class of Chemistry, Marshall-street.—Silver Medallist, James W. Horne, Stirlingshire. Class of Practical Chemistry.—First-class honours, (1) B. Harbottle; (2) W. H. Coupland; (3) W. Harper.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Condition of the Hoo Rural District, by Mr. SPEAR.—This district comprises a tongue of land that stretches into the estuary formed by the confluence of the rivers Thames and Medway; one half is marsh, but there is also an elevated range of London clay, capped here and there by gravel, the local industry being, apart from some brickmaking, almost purely agricultural. It is evidently a district lying under suspicion, for it had already been visited, on behalf of the Local Government Board, by Dr. Airy in 1881, and by the late Dr. De Chaumont, in connexion with the cholera survey in 1885. The story told by Mr. Spear is one that is altogether uninteresting apart from administrative considerations, for it is that of a district long since shown to have but few of the sanitary requisites of a healthy population, and one in which little progress has been made, notwithstanding that the defects and needs of the several localities composing it have been more than once pointed out. As regards disease, it is stated that diphtheria has become notably more prevalent and more fatal during recent years, and the village of Hoo is referred to as one of the places that has suffered most. One cause of this state of affairs is explained to be the complete absence of any proper organisation in the sanitary machinery of the district, there being no community of action between the medical officer of health and the inspector of nuisances, and it is especially urged on the sanitary authority that they should give heed to that portion of the Order of the Local Government Board relating to the duties of the inspector of nuisances, and which distinctly contemplates that this officer should to a large extent work under the direct superintendence and supervision of the health officer of the district.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5429 births and 2972 deaths were registered during the week ending Sept. 7th. The annual rate of mortality in these towns, which had been 19·2, 17·2, and 16·9 per 1000 in the preceding three weeks, further declined last week to 16·2, and was lower than the rate in any previous week of this year. During the first ten weeks of the current quarter the death-rate in these towns averaged 19·0 per 1000, and was 1·4 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 13·2 in Leicester, 13·9 in Bristol, 14·0 in London, and 14·5 in Wolverhampton. The rates in the other towns ranged upwards to 20·7 in Manchester, 25·4 in Plymouth, 26·0 in Preston, and 26·9 in Newcastle-upon-Tyne. The deaths referred to the principal zymotic diseases, which had been 811, 636, and 543 in the preceding three weeks, further declined last week to 512; they included 255 from diarrhœa, 63 from "fever" (principally enteric), 59 from scarlet fever, 58 from whooping-cough, 40 from measles, 37 from diphtheria, and not one from small-pox. These zymotic diseases caused the lowest death-rates in Derby and Birkenhead, and the highest in Sunderland, Preston, and Plymouth. The greatest mortality from diarrhœa occurred in Salford, Sunderland, Leicester, Blackburn, Newcastle-upon-Tyne, Hull, and Preston; from "fever" in Bradford, Norwich, Plymouth, Bolton, Preston, and Huddersfield; from scarlet fever in Plymouth, from whooping-cough in Sunderland, and from measles in Newcastle-upon-Tyne, Sunderland, and Preston. The deaths from diphtheria included 30 in London, 2 in Liverpool, and 2 in Preston. Small-pox caused no death in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week either in the Metropolitan Asylum Hospitals or in the Highgate Small-pox Hospital. The number of scarlet-fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1021, against numbers increasing in the preceding ten weeks from 559 to 966; 121 cases were admitted to these hospitals during the week, against 98 and 136 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 162, 115, and 148 in the preceding weeks, were last week 142, and were 25 below the corrected average. The causes of 57, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Bradford, Portsmouth, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Sheffield, and Oldham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·8 and 18·1 per 1000 in the preceding two weeks, declined to 16·5 in the week ending Sept. 7th; this rate exceeded by only 0·3 the low rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 11·1 and 11·6 in Perth and Paisley to 15·0 in Aberdeen and 21·2 in Glasgow. The 423 deaths in the eight towns showed a decline of 26 from the number in the previous week, and included 24 which were referred to diarrhœa, 18 to whooping-cough, 10 to "fever" (typhus, enteric, or ill-defined), 9 to diphtheria, 3 to measles, 2 to scarlet fever, and not one to small-pox; in all, 66 deaths resulted from these principal zymotic diseases, against 91 and 74 in the preceding two weeks. These 66

deaths were equal to an annual rate of 2·6 per 1000, which was 0·2 below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 48 and 31 in the preceding two weeks, further declined last week to 24, of which 13 occurred in Glasgow, 3 in Edinburgh, and 3 in Aberdeen. The 18 deaths from whooping-cough were within one of the number in the previous week, and included 10 in Glasgow, 4 in Dundee, and 2 in Leith. The 10 deaths referred to "fever" showed an increase upon the numbers in recent weeks; 6 were returned in Glasgow and 2 in Aberdeen. The fatal cases of diphtheria also exceeded the numbers in recent weeks, and included 3 in Glasgow, 3 in Leith, and 2 in Edinburgh. The deaths from measles and scarlet fever, on the other hand, showed a further decline from recent weekly numbers. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 48 and 55 in the previous two weeks, were last week 54, and 21 below the number returned in the corresponding week of last year. The causes of 39, or more than 9 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·4, 25·1, and 26·6 per 1000 in the preceding three weeks, declined to 18 6 in the week ending Sept. 7th. During the first ten weeks of the current quarter the death-rate in the city averaged 22·7 per 1000, the mean rate during the same period being 16·8 in London and 15·6 in Edinburgh. The 126 deaths in Dublin showed a decline of 54 from the number in the previous week; they included 11 which were referred to diarrhœa, 2 to whooping-cough, 1 to "fever," 1 to measles, and not one either to small-pox or diphtheria. Thus the deaths from these principal zymotic diseases, which had ranged in the preceding five weeks from 15 to 34, declined again last week to 15; they were equal to an annual rate of 2·2 per 1000, the rate from the same diseases being 2·1 in London and 1·4 in Edinburgh. The deaths referred to diarrhœa, which had increased in the previous five weeks from 8 to 26, declined again last week to 11. The deaths from "fever" also showed a marked decline. The deaths, both of infants and of elderly persons, showed a considerable decline from the numbers in recent weeks. Six inquest cases and 3 deaths from violence were registered; and 29, or nearly a quarter, of the deaths occurred in public institutions. The causes of 13, or more than 10 per cent., of the deaths in the city were not certified.

THE SERVICES.

THE *London Gazette* of the 6th inst. contains the official account, by Major-General Sir F. Grenfell, K.C.B., of the battle fought at Toski, and which ended in the total defeat of the Dervishes. Speaking of the services rendered by the medical staff, the Sirdar says: "When the reconnaissance developed into a general action, Surgeon-Major Hayes quickly returned to camp, arranged an increase of eighty beds on the seventy already organised, improvised a bearer column, and all wounded received first field dressings as they fell, and seriously wounded men were conveyed to hospital by stretcher parties and camels. This rapid organisation reflects great credit on Surgeon-Major Hayes, and the following officers of his department:—Surgeon Morse, S.M.O., 1st column; Surgeon Lewis, Extemporised Bearer Column; Surgeon Pinching, S.M.O., 2nd column, and I have every reason to be satisfied with all his arrangements for Egyptian wounded. In addition to the care of Egyptian wounded. Surgeon-Major Hayes had arranged for a large number of Dervish sick and wounded, and has worked night and day to alleviate their sufferings. He is a most able, active, and energetic officer."

ARMY MEDICAL STAFF.—Brigade Surgeon Caleb Sherar Wills, C.B., has been granted retired pay (dated Aug. 24th, 1889); Surgeon James Perceval Myles has been seconded for service with the Egyptian Army (dated Aug. 4th, 1889).

INDIA OFFICE.—The Queen has approved of the following admissions to the Indian Medical Service (dated March 30th, 1889):—To be Surgeons: Bengal—Fairlie Russell Ozzard, Adam Rivers Steele Anderson, John Telfer Calvert, Edgar Jennings, Theodore Mayo Stiles, and Arthur Gervase Hendly. Bombay—William Symonds Percival Ricketts, Charles Malcolm Moore, George William Jenney, and Charles Tilson Hudson.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon Wm. Coates resigns his commission (dated Sept. 4th, 1889).

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon James D'Arcy Harvey has been placed on the Retired List of his rank, at his own request; Surgeon Arthur William Egerton Brydges Barrett has been allowed to withdraw from Her Majesty's Naval Service with a gratuity.

The following gentlemen have been appointed Surgeons in Her Majesty's Fleet (dated Aug. 22nd):—George Allan, M.B.; William J. Maillard, M.B.: Percy V. Jackson; Oswald M. Jones; Nicholas C. Ridles; Alfred H. L. Cox; Erington F. S. M'Kay; and Alexander Maclean, M.B. The following appointments have also been made:—Surgeon Charles W. Hamilton to the *Wye;* Surgeon T. J. Crowley, M.D., to the *Boscawen;* Surgeon William E. Beal to the *Sultan;* Surgeon George K. Bell, to Chatham Hospital, temporarily; Fleet Surgeon Henry N. M. Sedgwick to the *Duke of Wellington*; Fleet Surgeon Henry A. Close to the *Northumberland*, vice Sedgwick; Staff Surgeon Richard J. Barry to the *Phæton;* Surgeon W. Slaughter, B.A., M.B., to the *Ajax;* and Surgeon Reginald T. A. Levinge to the *Hotspur.*

VOLUNTEER CORPS.—*Artillery:* 2nd Volunteer (Essex) Brigade, Eastern Division, Royal Artillery: Harold Gurney, Gent., to be Acting Surgeon (dated Sept. 4th, 1889).—1st Banff: Acting Surgeon F. W. Grant, M.D., to be Surgeon (dated Sept. 4th, 1889).—*Rifle:* 1st Volunteer Battalion, the Royal Warwickshire Regiment: Acting Surgeon E. L. Freer to be Surgeon (dated Sept. 4th, 1889).—3rd Volunteer Battalion, the Lancashire Fusiliers: Acting Surgeon W. E. Husband to be Surgeon (dated Sept. 4th, 1889).—1st Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Acting Surgeon J. Martin to be Surgeon (dated Sept. 4th, 1889).—1st Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment) Acting Sur. E. Vaudrey, M.B., to be Surgeon (dated Sept. 7, 1889).

Correspondence.

"Audi alteram partem."

CHLOROFORM AS AN ANÆSTHETIC.

To the Editors of THE LANCET.

SIRS,—I wish to criticise a few of Mr. Horsfall's remarks in his letter in favour of chloroform as an anæsthetic.

He says: "How rarely do we hear of a death *under* it; *from* it almost never." In the medical journals for the last ten years there are reported one hundred and twenty (if not more) cases of death under chloroform. Many of these are very imperfectly described, but in at least forty-nine cases the patients were in good general health at the time of administration, and required an anæsthetic merely for the performance of some minor operation—e.g., extraction of teeth (eleven cases of death), reduction of dislocations (nine cases), eye operations, fistulæ, and so on. In some fifty-nine cases death occurred before the commencement of the operation, and so was clearly due to the chloroform alone. In about twenty of the cases it is noted that chloroform had been successfully given on previous occasions; in one, as many as eight different times before the fatal administration. It is evident from the foregoing that chloroform is uncertain in its action; that not only do people die while *under* chloroform, but also *from* it—frequently, too, even when it is used by skilful hands. Of course, it is possible to retort that "it was not properly given," which may be correct. This will not alter the fact that these accidents prove chloroform to be a powerful agent, very difficult to administer properly—indeed, so difficult and dangerous that it is scarcely suitable for a routine anæsthetic, when a drug less powerful for evil can replace it.

Mr. Horsfall emphasises the objections to ether, without noticing the means of overcoming them. Its "nauseous flavour" and "the sense of suffocation" can be entirely done away with by the use of nitrous oxide, and its inhalation made more agreeable than even that of chloroform,

while the patient quickly becomes unconscious without the struggling so common with chloroform. I have not yet found a single patient who has once inhaled ether preceded by nitrous oxide complain of suffocation or object to take it again on the ground of its unpleasantness.

The readiness with which chloroform affects the heart, the smallness of a fatal dose, and especially the ease and suddenness with which such a dose can be inhaled almost by a couple of deep inspirations, will make its safe exhibition always a difficult task to invariably accomplish. Without having had so many years' experience, I have given chloroform successfully nearly as many times as Mr. Horsfall, and have gradually come to believe it to be a less safe anæsthetic than ether.

I am, Sirs, yours obediently,

ALEXANDER WILSON,

Administrator of Anæsthetics to the Manchester Royal Infirmary and Victoria Dental Hospital.

Sept. 3rd, 1889.

NOTIFICATION OF INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—Your leading article of August 31st on this subject, coming as it does after the passing of the obnoxious Bill, is as oil and wine to those who have taken part in opposing that measure. We appear to be worsted, but I am one of those who do not consider the game by any means played out yet. Something has been gained by our agitation in the fact that the dual system is not enforced over the whole country, and Mr. Walter McLaren, M.P., says that at his request (which was certainly most opportune) the chief clause has been altered so that the medical man has not (as intended) to state the name of the person whom he considers primarily liable, but only the name, address, and disease of the patient. Of course the effect on the householder will be the same, but we shall not be quite such *common* informers.

And now I wish to vindicate myself (and my statistics on this subject) from the attack of Professor Corfield, who, in *The Times* of August 28th, besides saying other unpleasant things, wrote as follows:—

"Mr. Biddle alludes to statistics prepared from the Registrar-General's reports, and concludes from them 'that the dual system is on the average destructive of life.' I would refer those who are anxious to ascertain the value of conclusions drawn by him from statistical tables to the controversy which took place between him and Dr. Whitelegge, the medical officer of health for Nottingham (now medical officer of health for the Western Division of Yorkshire), in the *British Medical Journal*, in March, April, and May of the present year. They will there find that Mr. Biddle argued that a reduction in the number of deaths from 1000 to 950 was equal to a reduction of from 50 to 0 if the population were equal; in other words, that 'the good effected would be the same' with a reduction of 5 per cent. of the deaths as with the abolition of the death-rate, and they will readily understand that Dr. Whitelegge did not consider such an argument worthy of a reply."

In the first place, I beg to say that I did not expect any reply from Dr. Whitelegge, since he had already expressed a resolve to write no more, and in the last letter from which Professor Corfield "quotes" I was merely availing myself of the usual right of terminating the discussion which I had begun. Secondly, I was treating of the death-rates from preventable diseases, in which zero is by no means an absurdly impossible limit. Year after year the death-rate from small-pox is *nil* in several of even the large towns, and in some does not average 0·005 per 1000 for ten years together.

But in order that your readers may judge fairly betwixt us, I will ask you to be kind enough to reproduce the passages in two of my letters from which Professor Corfield may be supposed to quote (or rather *mis*quote). The first[1] is as follows:—

"The principle of expressing the increase or decrease in the effect of any disease upon a community by the *ratio* between death-rates at given epochs, as by Dr. Whitelegge's system of percentages, is far from satisfactory, inasmuch as where the death-rate has been low slight vicissitudes produce too great an effect upon the estimate; and where, on the contrary, the death-rate has been high, a considerable change is apt to pass almost unnoticed. Thus, for instance, in the case of small-pox, it seems altogether unfair to regard a reduction in the average number of deaths in a town from 40 to 20 as no more than equivalent to a reduction from 4 to 2 or 2 to 1. It is far more just to take the *difference* between the average death-rates at two epochs, and thus obtain the actual yearly saving (or loss) of life per 1000 of the population, in the latter period as compared with the former."

The second letter[2] runs thus:—

"When Dr. Whitelegge attempts to invalidate the method adopted by me of taking the difference rather than the ratio between the death-rates of two epochs in order to estimate increase or decrease, which method I adopted because it shows the actual saving or loss of life per 1000 of the population, and when he says, 'To take another illustration, a reduction from 1000 to 950 would be equivalent to a reduction from 100 to 50 or from 50 to 0,' I beg to observe that such would not be the case, unless the populations compared were equal. But given this equality, the good effected would, so far as the evidence goes, be the same in all three instances, however different in potency might be the salutary influences brought to bear; and if the deaths in the first town went on decreasing by fifty each year until they reached zero, I should say that they did so by equal annual decrements, and, if the average population remained the same, at an equal annual rate.

"At the same time, there cannot be reduction of a death-rate which is already *nil*, nor is it fair to compare towns or groups of towns whose average death-rates did not, at the earlier of the two given epochs, afford pretty equal scope for reduction. I am ready to grant, therefore, that the ratio would serve as an estimate almost equally with the difference, if the commencing death-rates were on a par; but Dr. Whitelegge has disregarded this proviso.

"Now the two sub-groups of towns which I selected for comparison in my last letter, had (to commence with) death-rates almost identical, not only from zymotic diseases as a whole, but from these as differentiated into notifiable and non-notifiable. The advantages as regards number of towns (in the group), average population, and density were all on the side of the dual-notification group; and yet, whereas in 1871–76 the average death-rate of this group from notifiable diseases was only 2·55, as against 2·64 in the non-notification group, there was in 1881–86 a reversal of the relations, the death-rates from notifiable diseases being respectively 1·05 and 1·01."

On reviewing these passages I see no reason whatever for recantation on my part, but feel confident that recognised statisticians other than medical officers of health will agree with me that the effect produced upon a group death-rate by a reduction of 50 in the number of deaths in a particular town of that group would be precisely the same whether the previous number of deaths in that town were 1000 or only 50. In fact, it is easy to see that in either case 50 lives would be saved to the country, neither more nor less, in a population of given extent. If Dr. Whitelegge and Professor Corfield mean that it is always or even generally easier to reduce a high death-rate than a low one, I should like to know how this can be asserted with the evidence before our eyes of London and Manchester. The former, without any system of notification to control its teeming millions, has declined considerably in its death-rate, which for four years has been under 20 per 1000, and last year was only 18½; whilst the latter, with all the advantage (?) of the dual system, has become a public scandal, owing to the height at which its death-rate keeps, rarely falling below 27.

I am, Sirs, your obedient servant,

D. BIDDLE.

Kingston-on-Thames, Sept. 2nd, 1889.

To the Editors of THE LANCET.

SIRS,—Allow me to heartily thank you, on my own part and that of many others, for your able endeavours to prevent the medical profession from passing under the degrading yoke of the dual clauses of Mr. Ritchie's Bill. The profession have not been fairly dealt with in the matter of this Bill; for, to hurry it through committee of the House in the last week of the session, when the Government knew that every medical member was absent and all other opponents of the dual system also, except one, is not consonant with the principle of fair and just legislation, and such a proceeding merits the strong condemnation which

[1] Brit. Med. Jour., April 27th, 1889.

[2] Ibid., May 18th, 1889.

you have passed upon it in your leader of the 31st ult. Your arguments, and those of others, against medical notification have been very apt and able, and I am sorry that the official mind has not been more favourably impressed by their force and gravity.

In *The Times*, whose columns are now closed to discussion, there appeared on the 28th ult. a letter from Dr. Farquharson, in which he states his impression that the medical men of Kingston were not unanimous in their opposition to the dual clauses of the Kingston Improvement Bill. The fact that not one member of the profession refused to join in our opposition, except the medical officer of health of the Corporation, and that eighteen, residing within a mile and a quarter of the Town Hall, and including four other medical officers of health, most liberally subscribed to a fund to carry the opposition into both Houses of Parliament, will be sufficient, I hope, to remove that impression.

I am, Sirs, yours obediently,

Kingston-on-Thames, Sept. 3rd, 1889. T. CORBETT.

THE MAYBRICK CASE.

To the Editors of THE LANCET.

SIRS,—Though I was simply amazed at the verdict of "Guilty" after the lack of any evidence whatsoever to prove to the jury that Mrs. Maybrick administered, or attempted to administer, arsenic with a criminal intent to the deceased, my feeling of surprise was trivial compared to that experienced on reading Mr. Bond's letter in your columns today. Mr. Bond, after severely condemning the evidence of Drs. Tidy and Macnamara, insists that the deceased died from arsenic poisoning, and suggests that Mrs. Maybrick poisoned her husband with a solution of arsenic from the fly-papers she bought. The Home Secretary, however, after an exhaustive review of the evidence, a re-examination of some of the medical witnesses, and additional legal and medical advice, distinctly states that there is a reasonable doubt whether the death was caused by the administration of arsenic. This official deliverance is a complete answer to Mr. Bond's insistance that the man was killed by arsenic.

Mr. Bond, though he thinks that the fly-papers were the source of the arsenic wherewith he asserts that Mr. Maybrick was poisoned, dwells on the grave suspiciousness of the large quantities of white arsenic found in the house, adding that in several cases of poisoning this form (arsenious acid) was used. Does he mean that Mrs. Maybrick gave the deceased arsenious acid and also arsenic from the fly-papers, the latter of course in solution? If so, why was so very little arsenic found in the body? As I read the evidence, Mrs. Maybrick was accused of administering the poison in solution, *not* of administering the solid form.

Again, when was the large quantity of arsenious acid found? After death; and there was no evidence to show that Mrs. Maybrick had either bought or placed it where it was found. Thereby, I have no doubt, hangs a tale. It is a mystery for the nonce, but it was for the Crown to prove that Mrs. Maybrick procured and placed it, neither of which they attempted to do. That suspiciously large store (more than seventy grains) *might* have been deposited by some other woman or man; but, even on the hypothesis that Mrs. Maybrick was a poisoner, what purpose could this enormous quantity, placed where it could easily be found, have served her?

I entirely disagree with Mr. Bond's opinion, and am satisfied that no proof has been adduced in public of the death of the husband by arsenic poisoning.

I was present at Madeline Smith's trial in Edinburgh thirty-two years ago. In her case there was a clear motive (the removal of a lover who had threatened to stop an eligible marriage by the production of compromising letters). There was a large quantity of the poison found in the body of the deceased, and she was proved to have bought the poisonous substance. Yet an intelligent Scotch jury returned a verdict of "Not proven." *That* jury would assuredly have acquitted Mrs. Maybrick, against whom the evidence was so much weaker.

It seems to me unwarrantable, on Dr. Stevenson's evidence as to the small quantity of arsenic detected by him, especially in the absence of some well-known and characteristic symptoms of arsenic poisoning, to conclude that the deceased must have died from poisoning, and I rejoice to find that Mr. Matthews has come to the conclusion that there is reasonable doubt on the subject. I have no doubt that all concerned—judge, jury, and witnesses on both sides—have been conscientious and straightforward, but human life and liberty are too precious to be lost on mere suspicion. It was for the Crown to prove the accused guilty, which they clearly failed to do. They only proved that the circumstances were suspicious. I have strong hope that Mr. Matthews, whose conduct I cannot too highly praise, will by-and-by completely fulfil the full requirements of reasonable doubt of the alleged offence (murder) by opening the prison door. It is to be regretted we have no Medico-Legal Society which could dispassionately discuss the trial.

I am, Sirs, your obedient servant,

NORMAN KERR, M.D.,
Vice-President (permanent) of the International Congress
Aug. 31st, 1889. of Medical Jurisprudence.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the able letter of Mr. Bond in your issue of Aug. 31st, and fully agree with him in the opinions therein expressed. It is remarkable how few cases are recorded of the post-mortem appearances of poisoning by arsenic in solution, and the departure from the more usual appearances to be expected under such circumstances seems to have been largely overlooked in the Maybrick case. Of course, such points are not liable to occur to a cross-examining counsel unless they are specially suggested to him at the time, and it is quite conceivable that those who might have been expected to be alive to the point were so astounded by the statement that the symptoms observed pointed away from arsenical poisoning that they did not have the questions put to the witnesses who gave such extraordinary evidence. But it is worthy of remark in this connexion that Woodman and Tidy, in their "Handbook of Forensic Medicine and Toxicology," state that "sometimes the patient dies without any bad or severe symptoms at all." It is clear, therefore, that the absence of certain symptoms, which led Dr. Tidy to dispute the theory of arsenical poisoning in the Maybrick case, finds a parallel in other cases quoted by himself.

There is one point in the Maybrick case of which many of the commentators appear to be ignorant; that is, that all the solid arsenic found was in admixture with charcoal (not with soot or indigo, which are the substances prescribed by law for mixing with arsenic). There was a chocolate box containing a stained handkerchief and a paper packet labelled "Arsenic; poison for cats." There were two bottles containing the same cat poison mixed with water. It seems probable that whoever used the cat poison found the presence of charcoal an inconvenience, and hence tried to remove it by adding water and filtering the solution through a handkerchief. This operation would probably prove unsuccessful, and hence cause a resort to fly-papers as a source of arsenic. It is not likely that Mr. Maybrick would willingly eat a mixture of arsenic with charcoal, and he had no occasion to separate the charcoal; for, besides a box nearly full of arsenical pills, Mrs. Maybrick states that he possessed a white powder which, at his request, she added to the meat-juice. If she had done so, some would probably have remained undissolved, whereas the analyst found the poison to be wholly in solution. Mrs. Maybrick states that she added a considerable quantity of water to the meat-juice to replace some of the liquid which she accidentally spilt, which is a strange action on the part of a person not in a position to fear punishment for carelessness. On the other hand, if an infusion of fly-papers were added to the meat-juice, the presence of arsenic (wholly in solution) and the dilution observed by the analyst would both be accounted for.

Much has been made of the absence of arsenic from the stomach of the deceased and of the small quantity found in the liver. In a previous case of undoubted poisoning by arseni al fly-papers (that of Flannigan and Higgins), the same analyst, Mr. Davies, only found twice as much arsenic as he *actually extracted* from Mr. Maybrick's liver. But Mr. Davies stated in evidence that he believed in Mr. Maybrick's case he only succeeded in extracting one-half of that present, and, as a matter of fact, the portion of liver examined by Dr. Stevenson was three times as rich in arsenic as that analysed by Mr. Davies.

I am, Sirs, yours respectfully,

ALFRED H. ALLEN, F.I.C., F.C.S.,
Past President of the Society of Public Analysts, &c.
Sheffield, Sept. 3rd, 1889.

"THE USE OF ROBURITE IN MINES."

To the Editors of THE LANCET.

SIRS,—I did not see the letter of "The Writer of the Article" in time to reply last week. In closing the discussion, so far as I am concerned, I would only beg to point out that my letter was addressed to the practical point of the *use* of roburite in mining, tunnelling, quarrying, &c., and I expressly asked to have the unfortunate accident at Gathurst eliminated from consideration, as it occurred during the *manufacture* of roburite, and from an operation which should certainly not have been performed by manual labour. I regret that "The Writer of the Article" should have supposed I wished to contend that dinitro-benzol, one of the organic components of roburite, is not poisonous if absorbed into the system, although it is certainly not so injurious as the more volatile nitro-benzol, of which latter roburite contains but a trace, produced during manufacture. My whole object in writing to you was to produce reliable evidence that, when *used* under proper and simple precautions, roburite does not produce an injurious effect upon the health; also that the gaseous products of explosion (fumes) were not different in kind from those produced by most other high explosives, though less in quantity. As to the far more injurious character of the fumes produced by fired gunpowder, I need say nothing. I may conclude with the illustration that when H R.H. Princess Henry of Battenberg fired a shot of roburite at the Winnstay Colliery, Ruabon, the other day, general surprise was expressed at the small quantity of the fumes; this has been my personal experience on many occasions.

I am, Sirs, your obedient servant,

Sept. 10th, 1889. W. H. WARDELL, Major-General.

TREATMENT OF FRACTURE OF THE NECK OF THE FEMUR.

To the Editors of THE LANCET.

SIRS,—In reference to your article on the treatment of fracture of the neck of the femur, I write to say that I have had several instances—two in old people—of complete bony union after treatment with the contrary-to-authority Liston's long splint, the fracture having first been reduced and then kept well up against the splint with broad woollen cravats, or large old-fashioned handkerchiefs, round the pelvis and chest. I use a large handkerchief, with tow or wool in the middle, and folded corner-wise, for counter extension, and a plaster stirrup for the foot, and, with old people, have a thin, soft bed on the hard one.

I am, Sirs, yours truly,

Rhymney, Sept. 3rd, 1889. T. HALL REDWOOD.

"HINTS TO STUDENTS BEGINNING."

To the Editors of THE LANCET.

SIRS,—Everyone must agree with your correspondent, "Experientia docet," in advising students to see something of private practice while going through their course, but why should they be recommended to reside with a physician? He does not dispense, or work a parish appointment, or attend clubs; nor does he usually see the numerous trivial cases that are so important for a student; and, what is more, he rarely keeps books or sends out accounts. Surely it would be far better for a student to reside with a general practitioner, who could initiate him into the mysteries of all classes of practice, and into those of dispensing and book-keeping as well.—I am, Sirs, yours truly,

Woolwich, Sept. 11th. THEODORE MAXWELL.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Liverpool School of Medicine.

THE appearance of the "Students' Number" of THE LANCET, with other indications that September is now come, warn us of the near approach of the opening of the Medical Faculty of the Liverpool University College. Liverpool has possessed a Medical School for more than half a century. It began as the Royal Institution School of Medicine, then became the Royal Infirmary School of Medicine, and has now expanded into the Medical Faculty of the Liverpool University College. It received some impetus in the year 1860 owing to a considerable increase in the number of students. But it is to Mr. Reginald Harrison that the school must always be indebted for its present position. Under his able management as Registrar and Demonstrator of Anatomy it acquired a position which it has never lost, but to which it has made considerable augmentations.

The Anatomical Rooms and Physiological Laboratory.—As anatomy and physiology are the basis of all real medical education, it has for years been recognised at this School that the practical study of Anatomy and Physiology is of primary importance. Those who remember the old dissecting-room of thirty years ago, find it very difficult to identify it now, enlarged, added to, and altered as it has been out of all recognition. Professor Mitchell Banks still occupies the chair of Anatomy, which he has now filled for many years. He is ably assisted by Mr. Thomas, F.R.C.S., and Mr. Gould; the supply of subjects is unlimited, and the facilities for acquiring a thoroughly practical knowledge of anatomy are such as could hardly be exceeded in any medical school. The Physiological Laboratory is amply furnished with microscopes and all other requirements for the teaching of Physiology, even up to the present high standard. Professor Caton and Mr. Larkin have charge of this department.

The *Chemical Laboratories* have been established in buildings recently erected for the purpose at considerable expense. Professor Campbell Brown is an analyst of repute, and students can learn Chemistry from the standard sufficient to enable them to pass the more ordinary examinations up to those for honours at the Victoria or any of the Universities. In this as in all other departments of the school care has been taken to make the teaching thoroughly practical.

Medicine and Surgery.—Professors Glynn and Rushton Parker lecture respectively upon Physic and Surgery; each has held his chair for some years past, and the classes are well attended. Provision for the practical study of both these important subjects will be found in the wards of the Royal Infirmary, where clinical lectures are regularly given.

The New Royal Infirmary.—There is every reason to hope that the winter session 1890-91 will find the professors, medical staff, residents, and students comfortably established in the newly erected and rapidly completing buildings of the Royal Infirmary, the most complete institution of the kind which has hitherto been erected. For the present, provisions for the accommodation of patients, and the clinical teaching of medicine and surgery have been made in temporary wards erected for the purpose and in the wards of the Lock Hospital. In the new infirmary there will be, in addition to every modern improvement, the most ample facilities for clinical teaching and reasonable opportunities of obtaining the various positions of clinical clerk, dresser, post-mortem clerk, house physician and house surgeon.

Other General Hospitals.—Although the close proximity of the Royal Infirmary to the School must always attract the larger number of students, some have availed themselves of the opportunities provided by the Northern and Royal Southern hospitals for the clinical study of medicine and surgery, at both of which hospitals one or more professors of the School hold office as physicians or surgeons. Both of these hospitals, being situated in convenient proximity to the Northern and Southern Docks respectively, receive annually a large number of accidents and urgent cases, affording to the students and resident surgeons almost unlimited opportunities for the study of fractures, dislocations, and other injuries. The Stanley Hospital, though more distant, is conveniently accessible by rail and tramcar, and also affords great opportunities for the clinical study of medicine and surgery.

When the new infirmary is reopened the Lock Hospital will be again ready for the reception of patients of both sexes suffering from syphilis and other venereal diseases. The male wards will be open as formerly to the students of the School for clinical study, clinical lectures being given by the surgeons every week. As might be expected in such a city as Liverpool, the number of cases of venereal disease exceeds very greatly the accommodation made for them. In addition to the eye department of the Royal Infirmary, there is the Eye and Ear Infirmary within a few minutes' walk of the School. Still nearer is the Ladies' Charity and Lying-in Hospital, the out-patient department of which provides the students with obstetric cases. The Thornton

wards of the infirmary will be an admirable field for the study of gynæcology under Dr. Wallace, the Professor of Obstetrics.

It would be impossible to give within the compass of a letter all the advantages which the Liverpool School offers to students. A collegiate residence for them is still in the future. But comfortable lodgings at most reasonable charges can be had near the College and in all parts of the city, as well as on the Cheshire side of the Mersey. Some medical practitioners receive pupils into their houses, while a limited number will be received into the infirmary and hospitals. A student can complete his medical curriculum here, or study for a year or more with great profit to himself, even should he have been at another provincial or a metropolitan school of medicine. Liverpool has had for many years the reputation of being a place for cotton-selling and money-making, for shipping and freights. It is all the more creditable to it and to the men who have nobly toiled for years amidst discouragement and difficulties, that they have effected what they have. Liverpool can now successfully compete with those ancient places where

> "Learning with its eagle eye
> Seeks Science in her log abode."

Death under Chloroform at Liverpool.

An inquest was recently held by the Liverpool city coroner upon the body of a boiler-scaler aged twenty-two, who went into the workhouse hospital suffering from phimosis and phagedœna of the prepuce. Dr. Alexander performed circumcision, the house-surgeon administering chloroform in the usual way. When the operation was all but completed, the patient passed a full stream of urine, which required Dr. Alexander to wait until the bladder was empty. It was then observed that the breathing had become irregular, and, in spite of every effort by artificial respiration, galvanism, &c., the patient never rallied. At the post-mortem examination nothing beyond congestion was found. It appears that the heart had ceased to beat when the breathing became irregular, and the passage of urine may have been the result of the same spasm which stopped the heart's action. The jury found that the young man had been treated skilfully, and had died under chloroform.

Liverpool, Sept. 10th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Ship Canal and Polluted Streams.

ON a former occasion attention has been called in these columns to a serious danger to public health that will undoubtedly arise in connexion with the polluted condition of the water forming to a large extent the future source of supply to the new ship canal, and public attention has recently been directed to this matter, by reports from one of the adjacent health authorities whose district borders upon the present Bridgewater Canal, which will ultimately become absorbed by the new watercourse. Numerous cases of a severe form of sore throat, apparently of a diphtheritic character, have arisen, to which the term "canal throat" has become applied. The directors of the canal company appear to be alive to their responsibilities, and, judging from the report of a recent meeting of the shareholders, they will endeavour to put a stop to the continued pollution of the waters of the Mersey, the Irwell, and the Medlock in their higher reaches. The Stockport Corporation has already taken steps to acquire some 100 acres of land for a sewage farm, in order to divert its sewage from the Mersey, and have notified the local authorities above Stockport, along the Mersey watershed, that they must also cease polluting the streams, so that possibly we are getting within measurable distance of the time when the present disgraceful condition of our local streams and rivers will be considerably improved.

The Hospitals.

The resignation of Mr. F. A. Heath, senior surgeon to the Royal Infirmary, has come rather as a surprise to some. Under the rules now in force every member of the honorary staff terminates his period of office at the age of sixty. Either Mr. Heath has resigned earlier than this rule calls for, or his appearance belies his real age and he carries his years remarkably well. Mr. Heath's election took place many years ago under the old rules and methods of appointment, when an election to the staff of the infirmary was almost as serious a matter to the candidates as a Parliamentary election. All that has now been changed, and the selection rests with a committee appointed for the purpose out of the general body of subscribers. Mr. F. A. Southam, who has been assistant surgeon for some six or seven years, goes up as full surgeon, and the vacant post of assistant surgeon will shortly be filled up. Amongst the applicants either Mr. Collier or Mr. Thorburn are mentioned as most likely to be the successful applicant. Both these gentlemen have been connected with the infirmary for some years.—At the annual meeting of the Ancoats Hospital a good record of work accomplished was given. This charity has in recent years made a considerable advance amongst our local hospitals, and the presence of Prince Albert Victor last year to lay the foundation of the new wing directed public attention towards it in a desirable way, for it has rather suffered in past years from the modest and unobtrusive fashion in which it has carried on its operations in one of the most crowded districts of the city. More than 10,000 patients have been under treatment during the year, a large proportion of these being accident cases. The managers appeal strongly for additional funds to clear off the debt incurred by the extensions.—A new eye hospital is projected in the neighbouring township of Altrincham; the exact need for this is not very apparent, for if every small town and district is to found a special hospital their name will soon be legion. Dr. Mules, formerly on the staff of the Manchester Eye Hospital, is to have the medical charge of the new institution.

Open Spaces, &c.

The old burial-ground attached to St. Michael's Church situate in Angel Meadow, one of the most notorious "slums" of Manchester, is about to be greatly improved and laid out as a recreation-ground for the benefit of the dwellers in that unpicturesque and squalid locality. An inquiry has been held before one of the inspectors of the Home Office, and although there was some slight opposition to the scheme, made on behalf of the churchwardens, it is highly probable that these difficulties will be got over, especially as Dr. Hoffman (the inspector) expressed his unqualified approval of the scheme.

The condition of the homes of the poor still continues to be the subject of considerable agitation, chiefly at the present time by open-air meetings, which are addressed by philanthropists, sanitarians, clergymen, and others, and we are assured that both in Manchester and Salford our municipal parliaments have the matter seriously before them. A considerable number of the worst houses have been closed or condemned and many others improved, but at present no scheme upon anything like a comprehensive scale has been brought forward for the better housing of the poor.

Our new medical officer of health, Dr. Tatham, has given public notice that he can be seen every morning from ten to twelve o'clock upon matters affecting in any way the public health, but that Wednesday afternoons will be specially set apart for this purpose, when he will be at the service of those who may wish to see him.

Manchester, Sept. 10th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Scarlet Fever in Birmingham.

DURING the past week there has been an increase in the number of cases admitted into the Borough Hospital. Forty-one new patients bring the total number up to 327. The epidemic seems to be universal, and not confined to any particular locality of the city. The Health Committee have instructed their superintendent that in case of an outbreak at a house with a shop attached the whole of the stock should be purchased and destroyed. In small tenements this may possibly succeed, but if it is repeated with large and valuable stocks, the experiment will be decidedly an expensive one. It indicates, however, that every precaution is being taken to limit the spread of this baneful disease.

The Cost of the New Workhouse Infirmary at Birmingham.

At a recent meeting of the guardians it was stated that the total cost of the building, with commissions and alterations over and above the original contract, would amount to little short of £94,000.

Prosecutions for Illegal Practice.

At the Birmingham Police-court, on the 6th inst., eighteen summonses were dealt with against various persons for falsely holding themselves out as legally-qualified practitioners in medicine and surgery. The prosecution was conducted by Dr. Showell Rogers on behalf of the Medical Defence Union. After hearing the evidence, the deputy stipendiary inflicted the full penalty and costs against three of the defendants, amounting in all to £40 and costs in each case. The other summonses were agreed to be dismissed. The pecuniary loss will probably aid in deterring this shameless kind of practice, carried on with such marked impudence. It will also help in enlightening those credulously disposed persons who, under a sense of personal guilt, are so easily trapped by specious advertisements. I am led to understand that the Nemesis of the law is not yet satisfied, and that the defendants will be further proceeded against in the County Court for the recovery of heavy penalties under the Apothecaries Act.

Birmingham, Sept. 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Health of Rothbury.

A WARM controversy on the health of Rothbury is going on in the Newcastle daily papers. It will be remembered that in the "Northern Counties Notes" of the 24th ult. it was mentioned that the resident medical men and the sanitary authority defended its sanitary condition, and the writer of the Notes, on the assumption that the medical men of the place would in all probability know most about it, on these grounds, and purely in a general way, to some extent supported their views. It appears that Mr. H. E. Armstrong, the medical officer of health for Newcastle, was the visitor to Rothbury who suffered in his family from the disease. Anyone going to a health resort and becoming ill from local causes is to be sympathised with. The first case in Mr. Armstrong's family took place on the twenty-first day of their visit to Rothbury—a period much beyond the usual stage of incubation of scarlet fever. Mr. Armstrong complains of the sanitary authority of Rothbury that they have no compulsory system of notification and no hospital for infectious diseases, the hardship of which he experienced when he had to remove his child all the way to the Newcastle Hospital.

Cremation.

Dr. Barron of Durham has printed the excellent address which he gave at the meeting of the North of England Branch at that city last month. In his address he chiefly deals with the cremation question, of which he is a very powerful advocate, and he certainly gives some weighty facts and arguments in favour of this mode of disposing of our dead. As bearing on the subject he narrates the following from his own observation: "In the summer of 1884 I was staying at the Lizard in Cornwall, and in the course of my wanderings found myself in the little churchyard of Landwednack, and noticed that a portion thereof was closely fenced off from the rest. I was unable to discover the reason of this at the time, but since then I have found an explanation in a little guide-book to the Lizard. It appears that in 1645 Landwednack was visited by the plague. It is said that about a century afterwards the part of the churchyard in which persons were buried who had died of pestilence was opened to receive the bodies of some shipwrecked sailors, upon which the plague reappeared. In consequence of this, that part of the churchyard was fenced off and planted, and has never been reopened since." Dr. Barron says, "If this story be true, then the germs of disease had lain in the ground, retaining their baleful influence, for one hundred years." To Dr. Barron's mind it is satisfactorily and clearly proved that the forces of nature are not capable of preventing a decaying body from causing and spreading disease when buried in large numbers in the ordinary method, especially when these bodies are buried in limited spaces, and particularly when the disease of which the person has died is of an infectious nature. He thinks that it has been proved to the satisfaction of all medical men that cremation is by far the best method for the disposal of the dead which has yet been thought of for the health of surviving humanity.

Carlisle.

At the last meeting of the governors of the Cumberland Infirmary, the Bishop of Carlisle presiding, reference was made to the very sudden death of the Secretary, Mr. Blomfield, whose desire was, the Bishop said, to do his very best for the institution he served. Mr. Blomfield gave himself up with great earnestness to the work of the infirmary.—The late Mr. Thomas Blair, whose will has been proved in the Carlisle District Registry, has left £200 to the Silloth Convalescent Institution, and £100 to the Carlisle Dispensary.—The late Miss Preusser, whose death near Windermere I have already noted, and whose interest in the boarding-out system for pauper children was well known, has left by will the half residue of her estate, which has been valued at nearly £7000, to promote that system, or for the advancement in life or possible emigration of pauper children in the district of Windermere.

Stockton Hospital.

The annual meeting of the Stockton Hospital shows an increase of patients treated as compared with the previous year; 473 in-patients had been treated, and 1265 out-door cases. The whole of the forty beds had, for the first time, been occupied, and by the new wing now in course of construction increased facilities were being provided. The subscriptions had also increased, the workmen contributing £528.

Ripon.

Last week Dr. Hoffman, medical inspector from the Home Office, made an inspection of the Ripon Cathedral burial ground, in consequence of a representation by the Dean and Chapter that the space for burials was rapidly being filled. Dr. Hoffman declared there was no pressing need for a new ground, but the Corporation, as the burial board, should be looking out for a new site.

Hexham.

The subject of the appointment of medical officer of health at Hexham has been settled by the reappointment of Dr. Maclagan, at his original salary of £300 per annum. Dr. Maclagan gives his whole time to the work, and some time since the local board wished to reduce the salary and allow private practice. This the Local Government Board did not approve of. Dr. Maclagan is, I am happy to say, rapidly recovering from his late severe accident.

Newcastle-on-Tyne, Sept. 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

GLASGOW.

Health of the City.

DURING the fortnight ending Aug. 24th the death-rate was 20·8, being 1·4 higher than the corresponding period of last year. Diarrhœa accounted for the increase; there were 51 deaths from this cause, and of these 46 occurred in children whose average age was only eight months. The total infant deaths numbered 133. Owing to the measles epidemic in the spring and infantile diarrhœa, this year will be remarkable for the large loss of child life.

St. Mungo's College.

The dissatisfaction caused by the mode of appointing the teachers in this College is not dying out, but rather spreading. Additional trouble has arisen, more particularly over the allotment of wards in the Royal Infirmary to the Professor of Clinical Medicine. The governors of St. Mungo's having appointed a professor, it became necessary to request the manager of the infirmary to accept their nominee, and provide him with wards. This request has been acceded to, and Dr. McVail has been appointed to wards as an extra physician. It is not unlikely that this dispute may be the forerunner of many such difficulties between St. Mungo's and the Royal Infirmary, two institutions which ought to have gone hand-in-hand from the outset.

Sale of Horseflesh.

It is comforting to learn from the Town Council reports, that the horse-slaughtering works of Glasgow are under constant inspection, and that "flesh of horses slaughtered in this city is never sold for human food."

Glasgow, Sept. 10th.

ABERDEEN.

Resignation of Professor Struthers.

THE University Court met on the 2nd inst., and had before it a letter from Dr. Struthers, making application to

be allowed to retire from his professorship. In his letter he says that he feels the step he has taken to be his duty alike to himself and to the University, because since a severe illness in the winter of 1887–88 he has felt unable to discharge the duties of the chair with regularity and efficiency. Referring to the changes in the School and the work that has fallen to him since he took office in 1863, he points out that he found the position to be an unsatisfactory one in every respect, as regards the numbers in the school, the buildings for anatomy, the museum, and other means of illustration and study. But he says, "In the event of my petition being granted, I shall have the satisfaction of leaving to my successor a large and increasing class, good anatomical buildings (completed in 1881), a large and select Museum of Anatomy, a full provision of instruments of anatomical study and research, and a large stock of drawings—in short, a fully-equipped and prosperous school of anatomy." Dr. Struthers has been engaged in the teaching of anatomy for forty-four years, and twenty-six of these have been spent in the service of the University of Aberdeen. During the year 1853–54, in the absence of the late Professor Goodsir, he discharged the duties of the Professorship of Anatomy in the University of Edinburgh. In speaking to a motion that the application be granted, Principal Geddes said: "By the announcement made, a vacancy falls to be created in one of the most important chairs in the Medical Faculty, and the University will lose the services of one of the best, most distinguished, and energetic professors.....He has not confined himself to his own department, for it is well known that there has hardly been any important movement of recent years connected with the University in which Dr. Struthers has not been both prominent and influential. Among these movements I might refer to the following as typical instances: The development of the system of local examinations, in which Dr. Struthers was the prime mover; the creation of medical bursaries, before him almost unknown; the institution of science degrees; and, though last, not least, the elaboration of our claim for extension of buildings, which has resulted in the concession on the part of the Government of an instalment of our claim. In his own field as a teacher and expounder of anatomy it would be difficult to find a rival to him, much less a superior. No one can, even as a transient visitor, pass through the anatomical rooms or look round the anatomical museum (which is his creation) without recognising in Dr. Struthers a most influential and energetic professor, and although opinion is known to differ, and differ very materially, as to his general educational policy, there can be no question that the period of office of Dr. Struthers as Professor of Anatomy will long remain a signal and marked period in the history and development of the Aberdeen Medical School." The motion to grant the application was carried unanimously.

University Class Fees.

The Court next considered a report from the Medical Faculty on the question of class fees. The report stated that, as the custom had hitherto been to charge a fee for not more than one practical class in connexion with any systematic course, the Medical Faculty recommended that meantime a fee be not payable for the winter practical surgical class, but that the fee for the summer course of operative surgery be raised to £3 3*s*. They also recommended that the fee for the classes of practical materia medica and pharmacy, practical medical jurisprudence and hygiene, be raised from £2 2*s*. to £3 3*s*. A resolution by the Medical Faculty was also read to the effect that in the event of Professor Struthers resigning the chair of Anatomy, they recommend to the Senatus that they should request the University Court to place systematic anatomy on the same footing as the other classes, the fee for a second attendance to be £2 2*s*. instead of £3 3*s*., and that the fees for practical anatomy and demonstrations, exclusive of cost of material, be so arranged that not more than £6 6*s*. in all should be payable by the students. The majority of the Court thought it inexpedient in present circumstances to enter upon the consideration of the recommendation of the Senatus, and a motion to that effect was carried. Principal Geddes thought the question should be taken up and considered at an early date, because it appeared to him that they were postponing indefinitely the completion of a very important University internal reform.

Aberdeen, Sept. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Adelaide Hospital, Dublin.

ON Tuesday last the following cases were operated on in the theatre of the hospital by Mr. Kellock Barton, senior surgeon to the institution:—Case 1: Recurrent scirrhus of the right breast; the enlarged axillary glands caused œdema of the forearm. Two glands were removed, the hæmorrhage, as usual in these operations, being very free. Case 2: Adhesions of the shoulder-joint in a sailor, interfering greatly with the movements of the articulation. Under ether these adhesions to a great extent were broken down by forcible manipulation, but the procedure will probably require to be repeated. Case 3: Tenotomy of the tendo Achillis for club-foot in a child. Chloroform was administered, the patient coming very rapidly under its influence. Case 4: Incision made downwards over the front of the left tibia close to the head for swelling and deep-seated pain. The periosteum being opened, some carious bone was felt and a gouge applied; an abscess in the bone, which was of considerable depth, gave exit to a quantity of pus. In this hospital the patient, prior to operation, is etherised or chloroformed in an adjoining room, and then wheeled in on an operating couch to the theatre. The advantages of an arrangement of this kind are obvious.

Dublin Medical Schools Amalgamation Scheme.

Owing to some irregularity in preparing the necessary legal documents, a certain amount of delay was unavoidably caused; but it is expected that the advertisements for the new professors &c. will be issued in a few days.

Royal College of Surgeons and the outgoing Lord-Lieutenant.

Among the various addresses presented to His Excellency the Marquis of Londonderry prior to his departure from Ireland, was the following:—"We, the President, Vice-President, and Members of Council of the Royal College of Surgeons in Ireland, have learned with unfeigned regret your Excellency's determination to resign the high office confided to you by Her Most Gracious Majesty. We desire to approach your Excellency with this most sincere acknowledgment of the unvarying kindness which we have on every occasion experienced at your hands, and of our grateful recognition of the warm interest you have at all times evinced in the well-being of our College. Devoted as we are solely to the advancement of the science and art of our profession, we make them our objects, and leave the vexed field of politics untouched. Yet, as Irishmen, we are not debarred from recognising such admirable qualities as you have displayed in the fulfilment of your Viceregal responsibilities. The regret which we feel upon the present occasion is, however, in a certain measure tempered by the reflection that, although your residence as Viceroy in this country may have terminated, still, as a resident Irish landlord, you and your most amiable lady will still be in our midst, and our heartfelt prayer is that it may please Divine Providence long to preserve you both in health, happiness, and prosperity."

The late Henry H. Boxwell, F.R.C.S.I.

Mr. Boxwell, who had been one of the leading practitioners in the county Wexford for many years, died at the Infirmary House, Wexford, on the 1st inst., at an advanced age. The deceased gentleman had been upwards of half a century surgeon to the infirmary, and was generally esteemed and respected. The appointment he held will be filled up by the governors of the infirmary on the 30th inst., the emoluments of the post being £120 per annum, with a residence.

Galway County Infirmary.

The judge at the recent assizes having refused to fiat the annual presentment of £900 for the institution by the grand jury, in consequence of the governors not having acted in accordance with the writ of *mandamus* issued by the Court of Queen's Bench, the majority of the governors decided to close it for want of the necessary funds. A special meeting was held to consider the matter, when the chairman, Mr. Henry Persse, very generously announced his intention to maintain the institution for the ensuing year out of his own pocket. The resolution to close the infirmary was consequently

rescinded, and a vote of thanks passed to Mr. Persse for his kind offer.

Lunacy Accommodation in the Dublin Workhouses.

The two unions, North and South Dublin, are in the one district, and similarly supported. They contain 380 insane inmates, the accommodation at the north being decidedly inferior, particularly in the female divisions. There is a narrow, single-storeyed building, cramped in by a high wall on one side and an elevated structure on the other, containing double-bedded cells, which do not afford 330 cubic feet to each patient. It has no available corridor and no adequate supply of air, the only aperture in the cells for light and ventilation being windows not fifteen inches in diameter. Even at the South Dublin Union, where the accommodation is much better, there is scarcely half an acre of available exercise ground for over 220 patients.

The Lords Justices have sanctioned the expenditure of £2000 for the acquisition of certain lands necessary for Omagh District Lunatic Asylum; also £500 for improvements at Limerick Lunatic Asylum; and a similar amount for Enniscorthy Asylum.

Mr. Robert G. Bird, Fleet-Surgeon R.N. (retired), has been placed on the Commission of the Peace for the county of Cork.

Mr. M. A. Donnelly, of Dublin, met with an accident lately while driving in a car, and has been under the care of Mr. Stamer O'Grady. He is progressing favourably.

Dublin, Sept. 10th.

BELFAST.

The Royal Hospital.

The quarterly meeting of this charity was held on Aug. 26th, when, from the report presented, I learn that during the quarter there were treated in hospital 517 in-patients; of these, 201 were medical and 316 surgical. During the same period there were 5208 out-patients, of whom 3898 were surgical, the remainder medical. At the close of last quarter's report the hospital stood indebted in the sum of £1463 18*s.* 8*d.* Since then the receipts have been £1886 12*s.* 11*d.*, and the expenditure £2068 4*s.* 11*d.*, which brings up the indebtedness to the sum of £1645 10*s.* 8*d.* at the end of July. Professor Cuming, Mr. Fagan, and Professor Sinclair were re-elected medical attendants of the institution. There have been a larger number of in-patients and out-patients than in any previous year.

Queen's College.

For some time past the Queen's College authorities have had before them applications from a number of young ladies who desire to enter the medical classes with a view of studying for the medical profession. A meeting of the medical faculty of the College was held last week to consider this matter, when it was decided to open the classes to ladies. Already ladies have for some time been attending the arts classes, and, in arranging to admit them to the medical curriculum, the faculty were no doubt influenced by what has been done in other schools, as well as by the fact that in the Royal University ladies are eligible for the medical degrees and other honours. We believe that the new President (Dr. Hamilton) was strongly in favour of the arrangement which has just been made. The ladies, it is said, are not to be taught in separate classes, but will attend with the other students as in the Arts Faculty. I understand that the staff of the Royal Hospital are in favour of opening the practice of the hospital to women.

Belfast, Sept. 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Electricity in the Treatment of Fibroids.

DR. LUCAS-CHAMPIONNIÈRE lately presented to the Société de Chirurgie a very interesting note on the result of the action of electricity in the treatment of uterine fibromata, which he had undertaken conjointly with Dr. Danion, a well-known electrician. The conclusions of the authors, notwithstanding certain restrictions caused principally by the difficulty to obtain absolutely radical cures which remain the privilege of surgery, and the slowness of the results, are most favourable to the method, with which no other medical treatment, they say, can be compared. The patients were treated by Dr. Danion in Dr. Lucas-Championnière's ward at the St. Louis Hospital. He introduced in the method generally employed—that is to say, that of Apostoli—such modifications that they really constitute a new treatment. The intensities employed by Dr. Danion have never exceeded sixty-five milliampères, and the action has nearly always been purely intra-cervical. He thus endeavoured to demonstrate as clearly as possible the inutility of uterine action. For the punctures which are practised in such cases he has substituted a vaginal tampon, from which he obtained results far superior to those which have been observed heretofore. But it must be remarked that Dr. Danion, as a complementary measure to these new procedures, frequently reverses the current, which appears to give to the treatment a considerable activity. The greater number of surgeons who took part in the discussion which followed this communication agreed that, if surgery can alone pretend to effect radical cures, electrotherapy may certainly be placed at the head of the medical means.

Alcoholism.

For some time alcoholism has been engaging the attention of alienists, who attribute to it much of the increase of insanity. During the last fifty years, states a report submitted to the Minister of the Interior, the consumption of alcohol has trebled, and the number of lunatics has quadrupled. Crime and suicide are also steadily on the increase. In the years 1872–87 the number of suicides have increased by 55 per cent. Their proportion in regard to the population has risen from 15 to 21 per 100,000 inhabitants. Women resort less frequently to suicide than men. As shown in previous statistics, the frequency of suicide bears a relative proportion to age. Thus up to the age of forty years the propensity to suicide remains the same in women as in men, but after this period it increases regularly with age. The report of the last International Congress for the Suppression of Alcoholism, which was held in Paris from July 29th to Aug. 1st, 1889, contains the old and familar statement that criminality and mental aberration follow a march parallel with the consumption of alcholic beverages. It is also stated that the number of crimes and offences against morals is exactly in ratio with the consumption of alcohol. To the influence of the excessive use of alcohol is also attributed the degradation of the race, it being a fact that the health of children almost always suffers from the alcoholic excesses of the parents. To the same influence is attributed in part the phenomenon of the continued diminution in the population of France, more noticeable in some parts than in others, for in the wine-growing districts drunkenness is less prevalent than in those where the consumption of alcohol is relatively considerable.

The Medical Department of the Paris Exhibition.

This department has just published its report relative to its work during the months of June and July last. As has before been mentioned, the ambulance system is well organised. The stretchers are always ready to pick up patients, who are then attended to and conveyed to their own homes or to a hospital. The following statistics may be found interesting. The medical service had consumed during the two months of June and July 2 litres of ether, 20 litres of camphorated spirits, 60 litres of eau de mélisse (a kind of aromatic spirits), and 100 litres of carbolic water. Fifty mustard plasters were applied, and 300 hypodermic injections of morphia and of cocaine were practised on patients at the Exhibition. The number of dressings amounted to 1780, of which 935 were for visitors. One workman died from accident; among the visitors there were six cases of sudden death. In this period of two months 18 workmen and 490 visitors were sent to the hospital. The greater number of the injured workmen were the subjects of crushing (*écrasement*), contusions, or cuts. The indispositions have almost always had for their cause, among the visitors, indigestion and affections of the heart. There have been some cases of poisoning, and three cases produced by the ingestion of sausages and hams.

The Continental Anglo-American Medical Society.

The following is the constitution of this new Society, which has been already referred to in a former letter:—Honorary Presidents: Sir Spencer Wells, Sir Joseph Lister, Dr. Richard Quain, Professor Ball, Professor Brown-Séquard, Dr. Ricord, Dr. J. S. Billings, Dr. Fordyce Barker, and Dr. Weir Mitchell. Executive Committee: The Hon.

Alan Herbert, M.D., Dr. Faure-Miller, Dr. Chapman, Dr. Dupuy, Dr. Barnard, and Dr. T. Linn as Secretary (16, Rue de la Paix, Paris), to whom all communications should be addressed. The first general meeting of this Society will take place at the Grand Hotel, Paris, on Monday, Sept. 30th, at 5 P.M.; and the first annual dinner will also take place at the Grand Hotel at 8 P.M. on the same evening.

Paris, Sept. 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Dr. Wilhelm Loewenthal.

THE appointment of Professor Loewenthal to be a doctor in the French navy, with instructions to investigate cholera in Tonkin—which appointment I reported some time ago—has had a singular sequel. Paris journals found the news in German newspapers, and fell foul of the French Government for giving a Prussian the rank and uniform of a French officer. Some went so far as to hint that the German Professor might easily be a spy, who wished to go to Tonkin, under the pretext of scientific pursuits, in order to survey the land—perhaps even to make preparations for its conquest by Germany. These utterances caused such commotion among a number of naval officers and medical men that they addressed an indignant protest to the Admiralty, declaring that they would not receive a Prussian as a comrade. These circumstances induced the French Government to cancel the appointment, and Professor Loewenthal was officially informed of its decision, with the remark that "under existing circumstances his position in Tonkin would have been untenable." Meanwhile, however, the attention of the Argentine Government had been called to Professor Loewenthal, and it invited him to go to La Plata, to make a journey of investigation through that country, and report its results to the Minister of Foreign Affairs in Buenos Ayres. The Argentine Government wishes him to investigate the sanitary conditions of the country, and especially to determine whether it is in general healthy; what hygienic improvements might be introduced; what parts are best suited for colonisation by Europeans; whether Europeans would thrive best in the northern, the southern, or the central parts; whether they can not only live there temporarily, but also found families and multiply at a normal rate; what is the hygienic condition of the European settlements already existing, and what is the bodily and mental state of Europeans after a longer or shorter stay in La Plata. Professor Loewenthal has accepted the invitation and sailed for Buenos Ayres. My informant is a Paris correspondent of the *Vossische Zeitung* of Berlin.

Tuberculosis and Typhus in Munich.

Dr. von Ziemssen, the well-known head physician of the chief hospital in Munich, has recently published his observations and reflections on the decrease of tuberculosis in that city. His investigations had reference chiefly to the question as to what influence the cleansing of the soil of the Bavarian capital by sewers, which has almost banished typhus, has had on the frequency of tuberculosis. He shows that the number of deaths from tuberculosis has diminished by one-fourth during the last twenty-one years, and by one-third during the last eighteen years. Of every 100 deaths in Vienna in 1888, 23 were due to tuberculosis; in Würzburg, 19; in Frankfort-on-the-Maine and Nürnberg, 18; in Elberfeld and Leipsic, 16; in Berlin, Dresden, and Altona, 15; in Cologne and Stuttgart, 14; in Augsburg, 13; in Munich, Ratisbon, Hamburg, and Magdeburg, 12; in Breslau, 11; in Goerlitz, 10; and in Chemnitz, 9 per cent. Munich, accordingly, is one of the German cities which suffer least from tuberculosis. Von Ziemssen, however, hesitates to attribute this comparatively happy state of things to the cleansing of the soil alone. Nor can the protection which the boiling of milk, much more usual now than formerly, affords against the schizomycetes in the milk of tuberculous cows be regarded as the sole reason of the improvement; for Bollinger's most recent investigations have proved that the virus of the milk of a few such cows is counteracted by being mixed with that of many healthy ones. Von Ziemssen thinks that the improvement is due not only to the cleansing and drying of the soil on which the city stands, and to the supply of pure water, but also to the better construction of the houses, especially of the schools, the widening of the streets, and the laying out of large open spaces, plentifully planted with flowers, shrubs, and trees. In connexion with this subject, it is interesting to note, on the distinguished authority of Von Ziemssen's equally famous townsman and colleague, Professor von Pettenkofer, that twenty-eight times as many persons died of typhus in Munich in the sixth as in the ninth decade of this century, though the population has doubled in the interval. This victory of sanitary science is due to the simple facts that the city is now better supplied with drinking water, that the cesspools have been rendered waterproof and sewers have been laid, and that a central slaughter-house has been erected. These results are chiefly owing to the noble labours of the above-mentioned scientists and men like them.

The German Society for Public Hygiene.

The German Society for Public Hygiene will hold its fifteenth annual meeting in Strasburg from the 14th till the 17th inst. The transactions will be opened by a lecture on the Hygienic Condition and Arrangements in Alsace-Lorraine, delivered by the first medical official of that country, Privy Medical Councillor Dr. Krieger. This will be followed by a discussion of the proposals drawn up by a committee appointed at last year's meeting for legislation for the furtherance of house hygiene in Germany. This discussion will be introduced by Dr. Miguel, Burgomaster of Frankfort-on-the-Maine, who is one of the leaders of the National Liberal party in the Reichstag, and Professor Baumeister of Karlsruhe, one of the chief official advisers of the Government of Baden in architectural matters. On the second day the question of Convalescent Homes, at present a burning one for many German cities, will be introduced for discussion by Professor von Ziemssen of Munich and Burgomaster Back of Strasburg. After this discussion Professor Heller of Kiel will introduce the subject of the Prevention of Tuberculosis. The theme of debate on the third day will be the very important and hitherto somewhat neglected one of Railway Hygiene. The debate will be opened by Herr Wichert, Privy Councillor of Public Works in Berlin, and Professor Löffler of Greifswald, who will discuss the construction, lighting, ventilation, heating, cooling, and disinfecting of passenger carriages, the safe guarding of passengers against infection and accidents, the rendering of help in case of accidents and sudden illness, &c. The labours of the meeting will be diversified and enlivened by a banquet and the illumination of the Minster on the first evening; an excursion to Odilienberg, Mennelstein, and Barr on Sunday, the 15th, on which day there will be no formal meeting; and a social gathering of the members and their ladies as the guests of the city in the festal rooms of the Town-hall on Monday evening. Everyone who pays the annual contribution can take part in the meetings of the Society.

Berlin, Sept. 9th.

Obituary.

THOMAS KING CHAMBERS, M.D. OXON., F.R.C.P.

The death of Dr. King Chambers has taken away a man of high cultivation and of much force of character, though comparatively little known by the younger members of the medical profession. He had from bad health retired from active practice many years ago, when he was not fifty years of age. He retained, however, strongly marked intellectual faculties to within a few hours of his decease.

Dr. Chambers was born in London on Oct. 16th, 1817. His father was a metropolitan stipendiary magistrate. He was at school at Rugby under Dr. Arnold, and then went to Christ Church, Oxford, where he graduated with honours in classics. He retained a strong love of literature thus acquired, together with a certain fastidious literary taste, through life. He took a quaint pleasure in paradox, and expressed his opinions with a force and an originality highly characteristic of himself. This sometimes might put him at a disadvantage with persons who did not know him; but a strong sense of justice, an abounding probity, a vigorous intellect, and keen feelings of honour, always, and under all circumstances, at once inspired those who met him with the conviction that they were dealing with an English gentlemen of no ordinary capacity and character.

Dr. Chambers became Doctor of Medicine at Oxford in

1846, having been an assiduous student in the clinical wards of St. George's Hospital—a hospital where his cousin, Dr. Chambers, the trusted friend of Queen Adelaide, and one of the most popular physicians of his time, had been, with Sir Benjamin Brodie, among his great teachers in that famous institution. He was elected a Fellow of the College of Physicians of London in 1848, was Censor in 1860, Goulstonian Lecturer in 1850, and Lumleian Lecturer in 1863. He delivered the Harveian Oration in 1871. He was much attached to the College of Physicians, and jealous in all ways for its reputation. Dr. Chambers was selected to accompany the Prince of Wales to Italy when his Royal Highness made that first experiment in foreign travels with his faithful Governor-General Bruce. He took a house in Hill-street, Berkeley-square, but moved after some time to Brook-street, where he remained till the failure of his health, of which we shall presently speak. He became physician to the then young St. Mary's Hospital, and took the deepest interest in its development and in the formation and progress of its medical school. No one who remembers his lectures on Medicine will have forgotten the faithful and philosophic exposition of all the subjects which he undertook to teach, for he had a deep sense of the responsibility of a teacher of men whom he desired to practise the great art of Physic in the temper of Hippocrates. He looked upon the duty which every man owes to his fellow-man in conformity with his own profound but manly sympathy with the sufferings and sorrows of the sick and of the poor. It would take long, and more space than we have, to show this in detail; it is enough to say, by way of illustration, that he was greatly interested and actively engaged in the "House of Charity," in Rose-street, where we believe he worked with a congenial friend (shall we not say, even then, a noble example?)—the present Sir James Paget. He was, moreover, intimate with Professor Frederick Denison Maurice, and for him gave lectures at the Working Men's College. This connexion probably influenced the strong religious convictions which abode with him through life. To this should be added, as evidence of his wide social and professional sympathies, that he became consulting physician to the Lock Hospital. He was one of the first to warmly espouse the cause of the medical education of women. He was, indeed, if not the founder, a most energetic supporter of the Henrietta-street School of Medicine. On the death of Professor Rolleston in 1881 he became the representative of the University of Oxford in the Medical Council. In that body he did not, owing to the state of his health, play as active a part as otherwise he would assuredly have done. Educational questions, especially any that bore on the higher education of medical students, were to him of all things the most congenial. His name will be found as acting on the Committee on Education which, with Professor Struthers, reported to the Council in 1888. He was chairman of the Committee on the Employment of Unqualified Assistants by Registered Practitioners. He bestowed much labour and had much correspondence on this matter, regarding it as a subject demanding very careful inquiry, and involving many considerations not at first sight obvious. His statement appended to the valuable report of the whole committee, to be found in Volume 20 of the Minutes of the Medical Council (page 47), is illustrative of his manner of dealing with such a question.

It is not possible to omit noticing, in connexion with education, Dr. Chambers' steady help in the progress of the Medical Statutes in the University of Oxford, though this is not a place for fully discussing this complex question. He aided the University in raising the old standard of examination to the position it now holds as thoroughly practical in every department. With Dr. Andrew, Mr. Teale, and Dr. John William Ogle, he spent without stint energy and time in this work. On the clinical examination especially, he was found to bestow the most scrupulous but never unreasonable or captious attention.

The principal works of Dr. Chambers consist of "Clinical Lectures"; of three volumes on questions affecting the digestive organs—viz., "Digestion and its Derangements—the principles of rational medicine applied to Disorders of the Alimentary Canal"; "The Indigestions or Diseases of the Digestive Organs functionally treated"; and a "Manual of Diet in Health and Disease." These volumes were all published prior to 1878. The first, indeed, was issued in 1855. They have all become part of medical literature; they attracted much attention in this country and in the United States. Besides these well-known writings, Dr. Chambers contributed anonymously to various periodicals many lighter works of fancy, and a large number of letters on social and philanthropic subjects. He also wrote a book on the Climate of Italy, the result of personal observation—the observation, be it noted, of an artist, closely attentive to all phenomena of external nature as well as of a shrewd and independent physician. It is well to say here that Dr. Chambers had considerable attainments as an artist in a true sense. He drew admirably from nature both in line and in colour, and chiefly in landscape. He had a fine sense of composition, and, though not confined to any school or educated by any master, his record of form and his interpretation of colour were alike deserving of notice among accomplished amateurs. Late in life he took to carving in wood, sometimes in bas-relief, and sometimes in the completely modelled figure. He executed several good medallion portraits, and took great pleasure in the interpretation of animal life. All this art work was, as might be expected, characterised by the force and energy of the man.

We have reserved to the last a few parting words concerning the ill-health and suffering with which Dr. Chambers was afflicted. It was discovered about the year 1862 that he had a popliteal aneurysm of the left leg. Before long amputation became urgently necessary. The limb was removed by Sir James Paget, other friends being with him. He assented with instant cheerfulness to this necessary verdict. The same affection appeared in the other limb, and this was saved by Sir James Paget, with Mr. T. Smith's aid, by pressure. In the interval of these two operations he manfully continued his work, including his duties as physician and lecturer at St. Mary's. But after the second procedure he retired into the country at Sunningdale; there he carried on his intellectual and artistic pursuits, going regularly to the Medical Council, to the examinations at Oxford, and also twice a week to the Hand-in-hand Insurance Office. Gradually serious disease was developed in the heart and larger vessels, and, after months of distress patiently borne, he peacefully sank at last, in full possession of all his faculties, on Aug. 15th of the present year.

The strength and cheerfulness of this strong man rested not more on a natural courage under much trial than on a never-failing, but yet silent, power of an abiding Christian faith. A widow and two daughters survive him. Of these two, the elder is married to Mr. Walter Ouless, the accomplished Academician.

LAWRENCE TRENT CUMBERBATCH, M.D. ST. AND., M.R.C.P. LOND., M.R.C.S.

DR. CUMBERBATCH, who died so suddenly on Aug. 18th, was born at Barbadoes on May 1st, 1824. He was the son of Edward Carlton Cumberbatch, a gentleman living in the West Indies on account of property belonging to his family. The original intention of his father was that Dr. Cumberbatch should join a well-known firm of merchants, but this was afterwards abandoned, and, as inclination led him to the study of medicine, he was entered as a student at Trinity College, Dublin, at the age of sixteen. His college career was marked by close application to work; but as in those days it was considered rather a matter of importance that he should become qualified to practise with as little delay as possible, he graduated B.A. in 1846, after which he studied for some time in Paris, and then, in 1848, took the membership of the Royal College of Surgeons of England, instead of proceeding to graduate in medicine. This was a matter of great regret to him afterwards, although at the time it was unavoidable. Having obtained his diploma, he immediately commenced work. He became assistant at Chipping Norton to a practitioner who had an extensive practice and held several appointments, amongst others a large union. It was here that Dr. Cumberbatch had the opportunities of obstetric work which laid the foundation of the excellent position he afterwards attained. Not only had he a large amount of work in obstetrics, but he had an extensive field for observation in general medicine, of which he thoroughly availed himself. Although at the time this work was frequently laborious, he valued it highly, and in after-life often remarked how much he owed to it. After doing this for a considerable time, an episode occurred which was the turning-point of his life. His father, being anxious that he should enter the army, and having considerable influence, succeeded in

obtaining a nomination for a commission as assistant surgeon. Accordingly, one day Dr. Cumberbatch received the news, and with it notice that he must come to London at once and report himself at the War Office. It happened that the season was over, and his uncle, to whom he had entrusted his diploma some time previously on purpose to be produced should there be a commission offered, had gone out of town. The day Dr. Cumberbatch arrived in London impressed him greatly, for it was entirely owing to his uncle's absence from town that his path in life became so very different. Repairing to the War Office, he learned, to his mortification, that he could receive no commission without producing his diploma. This was a serious blow then, for he had thrown up his work in the country in the expectation of immediately entering the army. He thought anxiously over his position, and came to the conclusion that he would settle in practice at once. Taking rooms near Lowndes-square, he waited. Having good family connexions and excellent ability, he soon secured a *clientèle*, which gradually increased until, after some years, it became so great that he resolved to throw up general practice entirely and confine himself to physician's work. Accordingly, in 1866, he took the M.D. of St. Andrews and the Membership of the Royal College of Physicians, London. The friend who induced him to devote himself to obstetric practice was the late Sir Charles Locock, who found in Dr. Cumberbatch a man of ability, and one who could be thoroughly trusted. He therefore largely availed himself of Dr. Cumberbatch's help, and was the means of throwing much work in his way. Dr. Cumberbatch, in like manner, was of great assistance to the late Dr. Cape, and also to Dr. Gream, whose obstetric practice was an extensive and fashionable one, until the time came when Dr. Cumberbatch found himself in the full tide of a very large obstetric and medical practice, for he always kept up his medical work, especially amongst children. Some time previously he had been offered the post of physician-accoucheur to a well-known lying-in hospital; but at that time he felt that he could not do justice to both a hospital and a large obstetric practice, and therefore declined the offer. He accepted, however, and held for some years, the office of physician to the Economic Insurance Office.

For many years Dr. Cumberbatch kept working at high pressure, making a very large income. About seven years ago, however, he suddenly discovered that his pulse, which had formerly been a natural one, had fallen to forty in the minute. Acting, therefore, on the advice of the friends whom he consulted, he immediately curtailed his midwifery practice, and as quickly as possible gave it up entirely, only entering the lying-in room in consultation. After the busiest time he had had for several years at the close of the season, he left London on the night of the 16th ult. to join his cousin's yacht in Scotland. Beyond being somewhat fatigued by the journey, he appeared well on arriving the following day. On Sunday, the 18th, at breakfast, he seemed in his usual excellent spirits. Soon afterwards he was seized with severe pain, which at first he attributed to indigestion, but which was evidently angina pectoris. He remarked that he had had a slight attack of the same kind the previous Sunday. The pain, however, increased, coming on in severe paroxysms, and in less than half an hour from the moment of seizure he died.

Dr. Cumberbatch is mourned by an extensive circle of friends and patients. He was a remarkable man, for, with no hospital or school at his back, he obtained one of the largest midwifery practices in the metropolis—a position which he held until he wisely determined to give up the more laborious part of his work and keep exclusively to consulting practice. Only those who have had the advantage of meeting him in consultation can know how valuable was his opinion; how thoroughly straightforward and honest he was, and of what comfort and support in difficult and complicated cases. He was a man of sound principles, upright, honourable, self-sacrificing, charitable, and kind. To his patients he endeared himself by his sympathy, as well as by his success in treating them; and those who knew him well were delighted by his bright, cheery manner, full of kindness, combined with thoughtfulness for their good. Of excellent observation and sound common sense, few could give more valuable or better advice than he upon general subjects, as well as upon those concerning his profession. One charming trait in his character was his entire freedom from professional jealousy, and his delight in assisting juniors who were starting in the race of life. To these he was every ready to stretch forth a helping hand and to give wise counsel. Although so widely known, and coming in contact with so many men, both in and out of his profession, it may be confidently affirmed that he never made an enemy.

Although a Fellow of the Royal Medical and Chirurgical Society, a member of the Pathological Society, and at one time a vice-president of the Obstetrical Society, immersed as he was so deeply in the cares and anxieties of a busy life, he never contributed to the literature of his profession. But he often stated that he intended, when he had sufficient time, to publish the results of observations made in the course of his practice. Cut off, as he was, at the age of sixty-five, in the midst of his activity, the rest to which he looked forward never came. There can be hardly any doubt, from a medical point of view, that had he been a little less self-sacrificing the end would not have been so soon.

In his home-life he was peculiarly charming: a devoted husband, a fond and affectionate father, full of forethought for those about him, he was likewise an excellent and agreeable, as well as an accomplished, companion. For, in addition to being a good classical scholar, he was well read in subjects apart from his profession, and was always thoroughly versed in the topics of the day. As a host, or at a dinner party, he was delightful, and those who have met him know what an acquisition he was, full of amusing anecdote and sparkling humour. He thoroughly enjoyed society, and, in spite of the many calls upon his time, entertained largely; indeed this, and an occasional visit to the Athenæum Club, were his chief means of recreation.

He married in 1854, and leaves to mourn him, besides his widow, two daughters, both of whom are married, and three sons.

WALTER JOHN COULSON, F.R.C.S. ENG.

WALTER JOHN COULSON, a brief notice of whose short and fatal illness appeared in our last issue, was born at Penzance in 1834. Having passed through the usual course at St. Mary's Hospital and filled the post of house surgeon and curator of the museum, he took the Fellowship of the Royal College of Surgeons in 1860, and became assistant surgeon to the hospital. At this time he was closely associated in practice with his uncle, the late Mr. W. Coulson, was assistant surgeon to the Lock Hospital, and was mainly instrumental in establishing St. Peter's Hospital for Stone, at which institution he was senior surgeon at the time of his death. For many years he was in large practice in St. James's-place before moving to Harley-street. His chief contributions to surgery were: "Stone in the Bladder, its Prevention, Early Symptoms, and Treatment by Lithotrity"; "Treatise on Syphilis"; "Case of Adhesion of Soft Palate to Posterior Wall of Pharynx following Syphilitic Ulceration, Operation," THE LANCET, 1862; "Obturator Hernia, Operation," ibid, 1863; "Remarks on Lithotrity, with Record of Fifteen Cases of Stone," *Med. Mirror*, 1864. He also edited the sixth edition of "Coulson on Diseases of the Bladder and Prostate."

Mr. Coulson enjoyed the esteem of a very large circle of friends, by whom his sterling qualities of mind and heart were greatly appreciated. To great skill in his profession he united a sympathetic temperament and a tenderness of disposition which endeared him to all with whom he was brought in contact, and everybody who came within the scope of his influence will deplore the void created by his untimely decease.

THE ASSOCIATION OF PUBLIC SANITARY INSPECTORS.—On the 4th inst., on the occasion of their annual Congress, the members of this Association assembled at Folkestone. Mr. S. Penfold (the mayor) received them, and afterwards opened the meeting. Mr. Hugh Alexander occupied the chair, who stated that the object of the Association was to obtain improved laws of sanitation and to elevate the standard of sanitary inspectors. A paper was read by the mayor of Hastings from Sir Edwin Chadwick, which dealt with the question of the disposal of sewage. Dr. Fitzgerald and Mr. Bateman read papers on the sanitation of Folkestone. After the meeting the mayor of the borough entertained the members of the Association and some friends to a luncheon at the Town Hall.

Medical News.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE.—At the First Examination for the degree of Bachelor in Medicine, held in August, the following candidates satisfied the Examiners:—

In all Subjects.—George Henry Vane Appleby, Wm. Henry Bishop, Robert Alfred Bolam, Robinson Brown, Henry King Dawson, Reginald Green, John Stratford Hall, Arthur Samuel Hedley, Norman Shaw Liddell, Benjamin May, Edward McGarity, William Ernest Peacock, Edward Vernon Peacock, James Peacock, Miles Prior, Edmund Race, Robert Sterling, B.A., L.Th.; Chas. Stewart, Samuel Short Whillis, James Powell Willis, and Geo. Jas. Williams, of the College of Medicine, Newcastle-on-Tyne; John William Henry Eyre, Guy's Hospital.

Elementary Anatomy and Physiology.—William Arthur Clayton, Wm. Wilkie Deans, William Forrest, Hugh Meyrick Jones, and George Turner Wayman, College of Medicine, Newcastle-on-Tyne.

Chemistry with Chemical Physics, and Botany with Medical Botany.—Arthur Badock, London Hospital; Thos. Bishop, Queen's College, Birmingham; Hugh Somerville Burniston, St. Mary's Hospital; Duncan James Caddy and Henry Case, College of Medicine, Newcastle-on-Tyne; Arthur Allen Fennings, St. Mary's Hospital; Chas. Forsyth and Arthur John Gardner, M.R.C.S., L.R.C.P., Yorkshire College, Leeds; Thomas George Smith Hodson, London Hospital; Daniel Noel Jackson, Thomas Francis Keenan, and Rowland Venables Lloyd-Williams, of the College of Medicine, Newcastle-on-Tyne; Gerald Lowsley, St. Bartholomew's Hospital; Gideon Wm. Barker Marsh, College of Medicine, Newcastle-on-Tyne; Francis Herbert Marson, Queen's College, Birmingham; George Edwyn Middlemist, College of Medicine, Newcastle-on-Tyne; Arthur Wm. Port, St. Bartholomew's Hospital; Lionel Litchfield Preston, Middlesex Hospital; William Ernest Rielly, University College Hospital; John Melville Ritchie, Queen's College, Birmingham; Lancelot Wm. Rolleston and Noel Florentine Rowstron, of St. Bartholomew's Hospital; Arthur Wm. Scott, Yorkshire College, Leeds; Robert Henry Sheperd, St. Bartholomew's Hospital; Harry Shore and Fredk. Hampson Simpson, of Queen's College, Birmingham; Harry Spicer, St. Bartholomew's Hospital; Fredk. Wm. Standish, College of Medicine, Newcastle-on-Tyne; Joseph B. Stephenson, Middlesex Hospital; Frank Wm. Stokes, University Coll. Hospital.

Chemistry with Chemical Physics.—Fredk. Carden Brodie, M.R.C.S., L.R.C.P., L.S.A., Middlesex Hospital; Charles Meaden, Bristol Medical School; Christopher Michael O'Brien, Trinity College, Dublin; Geo. Stephen Ware, M.R.C.S., L.R.C.P., L.S.A., Middlesex Hospital; Arthur Waldemar Brougham Warde, M.R.C.S., L.R.C.P.

Botany with Medical Botany.—Richard Pryce Mitchell, Lond. Hosp.

At the Second Examination for the degree of Bachelor in Medicine, the following candidates satisfied the Examiners:

Honours (Second Class).—Charles Forsyth, Yorkshire College, Leeds; Charles Henry Duncan Morland, M.R.C.S., L.R.C.P., St. George's Hospital; John Arthur Kendall, College of Medicine, Newcastle-on-Tyne.

Pass List.—Thomas Moffatt Allison and Eustace W. Powys Baines, of the College of Medicine, Newcastle-on-Tyne; Ernest Chittenden Bridges, St. Bartholomew's Hospital; Thomas Buckham, Alfred Cox, and Charles Vincent Dingle, of the College of Medicine, Newcastle-on-Tyne; Robert Bruce Duncan, St. Mary's Hospital; Eric France, College of Medicine, Newcastle-on-Tyne; Albert Gurney, London Hospital; Thomas Hartley, Wm. Cyril Haswell, Alfred John Hopper, Frederick Hunton, and Nicholas Magoris, of the College of Medicine, Newcastle-on-Tyne; John Pendlebury Molyneux, Owens College, Manchester; Kenneth Worsley Poole, M.R.C.S., L.R.C.P., London Hospital; William Turnbull and John Dobson Wardale, of the College of Medicine, Newcastle-on-Tyne; Arthur Waldemar Brougham Warde, St. Bartholomew's Hospital; Avery Clough Waters, M.R.C.S., L.S.A., London Hospital; Joseph Wood, Owens College, Manchester.

Licence in Sanitary Science.—William Henry Coates, M.B., M.R.C.S., L.R.C.P., L.S.A.; John Stokes, M.B. Durh.

Licence in Sanitary Science for Medical Officers of Health of Five Years' Standing.—Nicholas Hardcastle, M.R.C.S., L.S.A.; Thomas Stephen Maguire, M.D. Durh.; Edw. Sergeant, M.R.C.S. Eng., L.R.C.P. Lond.; William Dyne Steel, M.D. Aber.; Charles Robt. Straton, L.R.C.P., L.R.C.S. Edin.

MEDICAL MAGISTRATE.—Mr. John Bark, M.R.C.S., Stanley Mount, Bootle, has been placed on the Commission of the Peace for the borough of Bootle-cum-Linacre.

HUDDERSFIELD INFIRMARY.—Mr. Hanson Ormerod, of Brighouse, has just made a donation of £500 to the Building Extension Fund of the Huddersfield Infirmary.

QUARANTINE.—The British Representative at Lisbon telegraphed on the 9th inst. that eight days' quarantine had been imposed upon arrivals from Vigo, which was declared to be infected with disease of an epidemic character.

UNIVERSITY OF CAMBRIDGE: EXAMINATION IN SANITARY SCIENCE.—An examination in so much of State Medicine as is comprised in the functions of officers of health will be held at Cambridge on Tuesday, October 1st, and following days. Candidates who desire to present themselves for examination in October next must send in their applications and transmit the fees to the Rev. Dr. Luard, Registrar, University of Cambridge, on or before Sept. 26th.

VACCINATION CERTIFICATES.—Mr. John F. Staines has been appointed by the Local Government Board as a teacher of vaccination, and the certificate required by the different examining bodies can be obtained after a due course of instruction at the Public Vaccination Station, 47, Endell-street, St. Giles's, on Tuesday mornings, at 10 o'clock.

FOOTBALL FATALITY.—Thomas Spittle, a lad, of Lozells, Birmingham, was badly hurt on the 7th inst. whilst playing football on the Fentham-road Ground, Birchfield. He received a kick in the abdomen which necessitated his removal to the General Hospital. He died somewhat unexpectedly on Monday last.

DUNOON SEASIDE HOMES.—On Saturday last Lady King opened a new wing which has been added to the West of Scotland Convalescent Seaside Homes at Dunoon. The new structure has been built primarily for the accommodation of the servants, and, their old quarters being now devoted to patients, the accommodation of the Homes will be considerably increased.

LITERARY INTELLIGENCE.—Professor McKendrick's Text-book of Physiology will, we hear, be completed within a few days. The first portion, including General Physiology, was issued last year; and the second volume, containing Special Physiology, including Nutrition, Innervation, and Reproduction, will be published immediately by Messrs. MacLehose and Sons, Glasgow.

NEW COTTAGE HOSPITAL.—The Duke of Cambridge on Saturday last laid the memorial stone of a new Cottage Hospital at Shooter's-hill, near Woolwich. The new building, which is situated on a site given by the War Department, near the summit of the hill, cost £2700, of which £2350 have been subscribed. It contains two wards with ten beds.

DEATH OF A FASTING MAN.—An attempt on the part of a Frenchman at Lyons to imitate the foolish feats of such men as Succi and Merlatti, has, it is reported, had a melancholy, though hardly unlooked for, termination. The man, it appears, reached his twentieth day of abstinence from food; but his desire to continue the experiment was frustrated by death.

LONGTON COTTAGE HOSPITAL.—Sir Smith Child, in sending an additional gift to the amount of £250 towards the completion and furnishing of the New Cottage Hospital at Longton, expresses his earnest hope that efforts will be made to finish the work by freeing the hospital from all debt on the completion of the building, and that its proper maintenance will be one of the first cares of the inhabitants of Longton.

WORTHING INFIRMARY AND DISPENSARY.—At the annual general meeting of the governors of this institution the report and accounts, which were adopted, were on the whole favourable. The receipts for the past year amounted to £1672 0*s.* 4*d.* (including a legacy of £500 invested in 2¾ per cent. consols), and the expenditure to £1451 15*s.* 10*d.* The committee earnestly appealed for additional annual subscriptions to enable them to maintain the institution in its present efficient state.

ROYAL HOSPITAL FOR CHEST DISEASES.—On Wednesday last Lord Charles Bruce presided over a special court of governors of the above institution for the purpose of considering a resolution authorising the trustees to sell out a portion of the funded property of the hospital—not exceeding £6000—for the purpose of paying sundry debts incurred in building the new wing, and in necessary repairs. The chairman explained that the contractors had threatened legal action unless their claims were immediately settled. After considerable discussion the motion was agreed to by ten votes to seven.

RABIES.—According to the *London Gazette*, the number of dogs in England reported during the week ending August 24th as afflicted with rabies was 10 against none in the previous week. Of these, 1 died and 9 were killed. Of the 10 diseased animals, 4 belonged to Yorks (West Riding), 2 to Hants, and 1 each to Essex, Middlesex (excluding London), Oxford, and Sussex (Western Division). During the week ending Aug. 31st, there were 12 rabid dogs reported, all of which were killed. The distribution was as follows:—York (West Riding) 4, Middlesex (excluding London) 3, Surrey (excluding London) 2, and Hants, Kent, and London 1 each.

CAUSES OF UNFITNESS FOR MILITARY SERVICE.—According to an article in a Russian military medical journal, the number of young men liable to military service in the Kieff district who were rejected on medical grounds during the years 1883 to 1886 was more than 60 per cent. of those examined. The most frequent ground of rejection was myopia. This defect was especially common amongst Jews. The same remark applies to eruptions of the skin and of the scalp, which were also frequent causes of rejection. Another very frequent cause of rejection was hernia, and here, again, the Jews were found to be affected in this way more frequently than the Christians.

MORTALITY IN PUNISHMENT BATTALIONS.—Dr. Shishlo, a Russian military surgeon, has recently discussed the question of the cause of the high mortality which occurs in the so-called disciplinary battalions into which soldiers are sent for punishment. In these the life is harder, the duty more fatiguing, and the general conditions are less healthy; but according to Dr. Shishlo the explanation of the excessive death-rate depends not so much on these circumstances as on the fact that a number of the prisoners who form these battalions are sickly men, who, if they had behaved themselves, would have either been sent temporarily to their homes, or who would have obtained their discharge in the ordinary course, having completed their term of service.

PRESENTATIONS.—On Aug. 28th Wilford Vidal Robinson, L.R.C.P. Lond., M.R.C.S., of Hersham, Walton-on-Thames, was presented by a great number of friends and former patients, at Pinner, Middlesex, with an artistically executed address, accompanied by a cheque for a considerable sum, "as a mark of the high esteem and regard felt for him personally, and in recognition of the unfailing zeal and sympathy shown by him in professional work during seven years' residence among them."—Mr. H. T. Shapley, M.B. Aberd., L.R.C.P. Edin., M.R.C.S. Eng., has been presented by the patients of the Leamington Provident Dispensary with a handsome marble timepiece and bracket, as a token of their appreciation of his services and attention to them.

THE ORDER OF THE HOSPITAL OF ST. JOHN OF JERUSALEM IN ENGLAND.—We understand that, in addition to those members of the medical profession already on the roll of the above Order, of which the Prince of Wales is Grand Prior, the sanction and approval of the Queen, the Sovereign Head and Patron of the Order, has been given to the enrolment of the following as honorary associates:—Surgeon-Major George Allan Hutton, M.D.; Joseph Dallas Pratt, M.D.; Surgeon-General Sir Robert Jackson, C.B., M.D.; William Edmund Cant, M.D., F.R.C.S.; Fleet Surgeon Henry Charles Woods, M.D., R.N.; William Henry Platt, L.R.C.P.; Walter Pearce, M.R.C.P., M.B.; Brigade Surgeon E. D. Tomlinson, M.D.; Deputy Inspector-General Matthew Coates, R.N., M.D.; John Martin, F.R.C.S.; James Robertson Crease, F.R.C.S.; Frederick Charles Mears, M.B., M.R.C.S.; Francis Richard Cassidi, M.D.; John Pleydell Wilton, M.R.C.S.; Alexander Theodore Brand, M.D.; Christopher Childs, L.R.C.P.; Arthur Symons Eccles, M.B.; Robert Clark, L.R.C.P.; Charles Knott, M.R.C.S.; William Warman Coleman, M.R.C.S.; John Blackburn, M.R.C.S.; and Edward Atkinson, M.R.C.S.

SHEFFIELD GENERAL INFIRMARY.—The annual meeting of the governors and subscribers of the Sheffield General Infirmary was held in the board-room of the institution last week. The secretary read the ninety-second annual report, in which regret was expressed that the expenditure had exceeded the ordinary income by £965 8s. 9d. This deficiency was, however, more than covered by legacies, which had this year been exceptionally large, and had enabled the board to make additional and much-needed accommodation for the nurses, and also to give to the patients a more liberal diet, besides adding considerably to the capital account. Mr. Arthur Jackson said he would commend to Mr. Howard Vincent, M.P., whom he was glad to see present, the consideration of one of the most burning questions of the day—hospital reform,—which would come before Parliament shortly. There would probably be a Royal Commission, and he hoped Mr. Vincent would be one of the foremost in looking into the question. It was a herculean task, and wanted to be considered as much as any other question in the country. The report was adopted.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on September 11th, 1889.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	199	59	..	48	4	310	442
North-Western Hospital	232	33	..	7	..	272	435
Western ,,	171	9	..	5	..	185	262
South-Western ,,	..	..	..	..	..	..	402
South-Eastern ,,	264	15	1	19	2	301	462
Northern ,,	177	..	..	..	..	177	480
Totals	1043	116	1	79	6	1245	2483

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ASHMEAD, GEORGE, L.R.C.P., L.R.C.S.Edin., has been reappointed Medical Officer to Brierley Hill and Quarry Bank.

BOND, F. F., M.D.Edin., M.B., C.M., has been reappointed Medical Officer of Rastrick, Yorkshire.

BOOBBYER, PHILIP, M.B., late Medical Officer of Health for Basford, has been appointed Medical Officer of Health to Nottingham Borough, vice B. A. Whitelegge, M.D., appointed Medical Officer of Health to the West-Riding County.

COOPER, WILLIAM, M.R.C.S., L.S.A., has been reappointed Medical Officer of Widnes.

COTES, DIGBY FRANCIS BAYNES, L.S.A.Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Parish of Teddington, Kingston Union.

CRAVEN, ROBT. MUSGRAVE, M.R.C.S., L.R.C.P.Edin., Dip. Publ. Health, Univ. Camb., has been appointed Medical Officer of Health to the various combining Sanitary Authorities of the county of Westmoreland.

DUNLOP, J., M.B., Ch.C.Vict., has been appointed House Surgeon to the Manchester Royal Infirmary.

EDELSTEN, ERNEST A., M.A., M.B., B.Ch.Oxon., M.R.C.S., L.R.C.P.L., has been appointed House Surgeon to the East London Hospital for Children, Shadwell.

EVANS, CHARLES WALTER, M.R.C.S., L.S.A.Lond., M.B.Lond., has been reappointed Medical Officer to the Bakewell (Derbyshire) Local Board.

EWENS, H. L., M.B., B.S.Durh., has been appointed Senior Resident Medical Officer of the Birmingham Children's Hospital.

FOXWELL, ARTHUR, B.A., M.B. Cantab., B.A., M.R.C.P. Lond., has been appointed Honorary Physician to the Queen's Hospital, Birmingham, vice Sir J. Sawyer, retired.

GIBBENS, F. E., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the sixth district, Romford Union.

HALLIWELL, J., M.R.C.S., L.R.C.P.Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

HEATON, GEORGE, M.A., M.B.Oxon., has been appointed Resident Surgical Officer to the General Hospital, Birmingham, vice E. N. Nason, resigned.

HOPKINSON, ALBERT, M.A., M.B., B.C. Cantab., has been appointed House Physician to the Manchester Royal Infirmary.

KELZNACK, J. N., M.B., B.Ch. Vict., has been appointed House Physician to the Manchester Royal Infirmary.

KINSEY-MORGAN A., M.R.C.S., L.S.A., has been reappointed Medical Officer of Bournemouth.

MACPHERSON, ALFRED, M.B., C.M.Edin., has been appointed a Honorary District Medical Officer to the Liverpool Ladies' Charity and Lying-in Hospital.

MASSIAH, BENJAMIN JONES, M.R.C.S., has been appointed Medical Officer of the Tenth District, Chorlton Union.

MCALDOWIE, A. M., M.D.Aberd., M.B., C.M., F.R.C.S.E., has been appointed Medical Officer to the North Staffordshire Infirmary, vice Orton.

MCMUNN, C. A., M.D.Dub., L.R.C.S., L.M.Irel., has been appointed Honorary Pathological Officer of the Wolverhampton General Hospital.

M'GOWAN, J. S., B.Sc. Lond., M.B., B.Ch.Irel., M.R.C.S., has been appointed House Surgeon to the Manchester Royal Infirmary.

ORTON, C., on retiring from the Honorary Medical Staff, has been appointed Consulting Physician to the North Staffordshire Infirmary.

PERKS, ROBT. H., M.D.Brux., F.R.C.S.Eng., L.R.C.P., Resident Medical Officer, Royal Albert Hospital, Devonport, has been appointed Medical Superintendent of the Adelaide Hospital, Adelaide, South Australia. [This is a new appointment, no previous incumbent.]

PURSLOW, C. E., M.D.Lond., M.B., M.R.C.S., has been appointed Honorary Obstetric Officer of the Queen's Hospital, Birmingham, vice Hopkins, resigned.

RICHARDSON, MARTIN J., M.B., C.M., has been appointed Assistant House Surgeon to the Rotherham Hospital and Dispensary, vice G. H. O'Reilly, M.B., M.R.C.S., L.S.A., resigned.

SHELDON, ROBERT GARNETT, M.R.C.S., L.S.A., has been appointed Medical Officer of the Kirkdale District (Liverpool), in succession to Dr. Bark, resigned.

SKIPWORTH, H., L.K.Q.C.P., L.M.Irel., M.R.C.S., has been reappointed Medical Officer, Quorndon Union district.

SOUTHAM, FREDERICK ARMITAGE, F.R.C.S.Eng., M.B.Univ. Oxfd., has been appointed Honorary Surgeon to the Manchester Infirmary, vice Mr. Frederick Ashton Heath, M.R.C.S., L.S.A.Lond., resigned.

SYKES, J., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

STANDEN, PETER, M.B.Edin., C.M., has been reappointed Medical Officer of Mansfield Rural district.

SULLY, A. MAX, L.R.C.P.Lond., M.R.C.S., has been appointed Assistant Resident Medical Officer of the Birmingham Children's Hospital.

TAYLOR, REGINALD, M.R.C.S., L.S.A., has been appointed Medical Officer of the Gray's-inn-road Workhouse Infirmary.

THOMSON, MALCOLM EDWARD, L.R.C.S.Irel., L.R.C.P.Edin., has been appointed Medical Officer of the St. Sepulchre District, Northampton.

WEATHERLY, A. J., M.R.C.S., L.R.C.P Lond., has been appointed Civil Medical Officer of the First Class to the Kurseong Division of the Darjeeling District; also Consulting Medical Officer to the Darjeeling Himalayan Railway.

WEST, C., L.R.C.P.Lond., M.R.C.S., has been appointed Resident Surgeon of North Cambs. Hospital.

WHITE, R. WENTWORTH, M.R.C.S., L.D.S., has been appointed to the newly created post of Honorary Dental Surgeon to the Norfolk and Norwich Hospital.

WILLIAMS, HUMPHREY LLOYD, M.R.C.S., L.S.A., has been appointed Medical Officer of Health for Flint.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOSCOMBE HOSPITAL AND PROVIDENT DISPENSARY, Bournemouth.—Resident Medical Officer. Salary £60 per annum, with board and residence at the hospital. Not more than five testimonials of recent date to be sent.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London, S.W.—Three Clinical Assistants. The fee is £3 3s. for three months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician. No salary, but board and residence provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—House Surgeon. Salary £70 with board, washing, and residence.

FEMALE LOCK HOSPITAL, Harrow-road, London, W.—Assistant House Surgeon. No salary, but board and lodging provided.

FLINTSHIRE DISPENSARY, Secretary, Bagillt-street, Holywell.—House Surgeon. Salary £100 per annum, with furnished house, rent and taxes free; also coal, lights, water, and cleaning, or in lieu thereof the sum of £20 per annum.

GENERAL HOSPITAL, Birmingham.—Resident Registrar and Pathologist. Salary £100 per annum, with board and lodging. Also Assistant House Surgeon, for six months. No salary, but residence, board, and washing will be provided.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—House Surgeon. Salary £80 per annum, with board and lodging in the hospital.

LEICESTER INFIRMARY AND FEVER HOUSE, Leicester.—House Surgeon. Salary £120 for the first year, rising at the rate of £10 per annum until the fourth year. Board, apartments and washing will be provided.

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Assistant. No salary, board and residence provided.

NOTTINGHAM GENERAL HOSPITAL.—Resident Surgical Assistant for six months. No salary, but board, lodging, and washing in the hospital.

PENDLETON BRANCH DISPENSARY.—House Surgeon. Salary £80 per annum, with board and appointments.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer for four months. Salary at the rate of £60 per annum, with board and residence in the hospital. Not more than four testimonials (copies) to be sent.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's-inn-fields, London.—Examiner in Dental Surgery.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, I.W.—Assistant Resident Medical Officer. Salary £60 per annum, with board and lodging in the hospital.

SOUTH DEVON AND CORNWALL HOSPITAL, Plymouth.—House Surgeon. Salary £100, with board and rations.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road, London. Honorary Physician.

Births, Marriages, and Deaths.

BIRTHS.

BEECHAM.—On Aug. 29th, at St. Mary's Villa, Huyton, near Liverpool, the wife of William Beecham, L.R.C.P., &c., of a son.

CARDWELL.—On Aug. 24th, at Kirkham, Lancashire, the wife of Thomas Cardwell, L.R.C.P., M.R.C.S., of a daughter.

COWARDIN.—On Aug. 31st, at Edith-road, West Kensington, W., the wife of Dr. Thos. G. Cowardin, late of Richmond, Virginia, U.S.A., of a daughter.

DAVIES.—On Aug. 18th, at Maisonnette, Woolston, Southampton, the wife of Surgeon A. M. Davies, Army Medical Staff, of a daughter.

ELLIOTT.—On Sept. 5th, at Monson-place, Tunbridge Wells, the wife of Thomas Elliott, M.D., of a son.

GOULD.—On Aug. 28th, at Queen Anne-street, Cavendish-square, the wife of Alfred Pearce Gould, F.R.C.S. Eng., &c., of a daughter.

JOYCE.—On Aug. 26th, at Victoria-terrace, Weymouth, the wife of Staff Surgeon Joyce, R.N., H.M.S. *Hercules*, of a daughter, stillborn.

LYSTER.—On Sept. 8th, at Coleshill, Warwickshire, the wife of Arthur E. Lyster, M.R.C.S. Eng. and L.S.A. Lond., of a son.

MOIR.—On Sept. 8th, at Leinster-square, W., the wife of Byres Moir, M.B., of a son.

O'REILLY.—At Rathmore House, Highgate, the wife of Dr. G. J. O'Reilly, of a daughter.

PATTERSON.—On Sept. 8th, at Gosport, the wife of Staff Surgeon A. Patterson, R.N., H.M. ship *Victor Emanuel*, Hongkong, of a daughter, stillborn.

PECK.—On Sept. 4th, at Gower-street, the wife of Awdry Peck, M.A. Oxon., M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

ROE.—On Aug. 17th, at Amraoti Camp, India, the wife of Robert Bradley Roe, Esq., Civil Surgeon, Amraoti, of a son.

THOMPSON.—On Sept. 1st, at Priory House, Launceston, Cornwall, the wife of W. F. Thompson, M.B., of a son.

MARRIAGES.

AYMARD—WOOL.—On Sept. 5th, at St. Paul's Church, Clacton-on-Sea, John Law Aymé Aymard, M.R.C.S., L.R.C.P., of Ipswich, to Amy Constance Collins, third daughter of Bright Wool.

CHADWICK—HEMINGWAY.—On Sept. 11th, at the Parish Church, Ribbesford, Charles Stott Chadwick, M.R.C.S., L.R.C.P., of Birmingham, to Mary, eldest daughter of Richard Hemingway, Park Lodge, Bewdley, solicitor.

COLQUHOUN—LETCHFORD.—On Sept. 10th, at St. Matthew's Church, Upper Clapton, Wm. Brooks Colquhoun, L.R.C.P. Lond., M.R.C.S., of Stoke Newington-common, elder son of J. Carter Colquhoun, to Alice Jane, daughter of the late Frederick Letchford.

FAIRBANK—PEARSON.—On Sept. 5th, at All Saints' Church, Margaret-street, Hull, Henry S. Fairbank, M.B., son of John Hack Fairbank, to Beatrice Maude, daughter of Z. C. Pearson, The Park, Hull.

HAMILTON—RUSSELL.—On Aug. 27th, at St. Matthew's Church, Oakley-square, London, Henry Hamilton, M.R.C.S. Lond., L.R.C.P. Eng., L.S.A. Lond., second son of Henry Hamilton, of Falkland House, Finchley, to Lucilla Mary Elizabeth, widow of the late Phillip C. C. Russell, and only daughter of the late Odiarne Coates Lane, of Clifton, Bristol.

PHILLIPS—BAYLEY.—On Sept. 4th, at St. Andrew's Church, Plymouth, H. Astley Phillips, M.D., of Gravesend, to Catherine Bayley, widow of the late Fewster J. Bayley, Esq., and daughter of W. J. Square, F.R.C.S.

SMARTT—BEVAN.—On Aug. 21st, at Street Church, County Westmeath, Henry Warner Smartt, L.R.C.S.I., Castlepollard, son of F. W. Smartt, M.D., Ballymahon, to Anna Maria, daughter of the late Philip Bevan, M.D., F.R.C.S.I., Dublin.

STIRLING—ROGERS.—On Aug. 29th, at the Parish Church of St. Stephen's-by-Saltash, Charles Stirling, M.B., C.M., of London, youngest son of the late James Stirling, of Kirkintilloch, Scotland, to Julia, youngest daughter of John M. Rogers, of Pillmere, Saltash, Cornwall.

TURNER—LAWTON.—On Sept. 4th, at St. Paul's, Mill-hill, N.W., Nathaniel Henry Turner, M.R.C.S. Eng., L.R.C.P.Lond., of Ivy Walls, Edgbaston, second son of the late Fred. Turner, of Nizels, near Tonbridge, to Alice, youngest daughter of the late Robert Lawton, of Hough-hill, Dukinfield, Cheshire.

WALKER—ATKEY.—On Aug. 28th, at Holy Trinity Church, Kilburn, Basil Woodd Walker, M.D., son of the Rev. John Walker, M.A., of Bradwell, Suffolk, to Maud Ellen Atkey, daughter of the late John Atkey, formerly of Southsea.

WATSON—EDWARDS.—On Aug. 21st, at the Parish Church, East Budleigh, Devon, Robert Walker Watson, M.R.C.S. Eng., L.S.A. Lond., of Ladismith, Cape Colony, and Highbury New-park, London, to Jane Sarah, daughter of the late R. Edwards, Esq., of Knowle Villa, Budleigh Salterton.

DEATHS.

BOYES.—On Sept. 1st, at Lansdowne-crescent, Edinburgh, Charles R. Boyes, M.D., Retired Army Surgeon-Major, late of 60th King's Royal Rifles.

CLIFFORD.—On Sept. 3rd, at Cloonlurg, Slough, John James Clifford, M.D. Edin., late Surgeon-General (Queen's Royal) Lancers.

FLANAGAN.—On Aug. 8th, at Bangalore, of typhoid fever, Harold Edward Bickerson Flanagan, Surgeon Army Medical Staff, only son of Lieut.-Col. Flanagan, formerly of 76th and 81st Regts., aged 31.

FLEXMAN.—On Sept. 8th, at The Chase, King's Lynn, James Flexman, Esq., M.R.C.S., formerly of South Molton, Devon, and for many years Coroner of that borough, aged 72.

GILLIES.—On July 5th, at his residence, Regent-road, Dunedin, New Zealand, John Finlayson Gillies, M.D. Aber., L.R.C.S. Edin., aged 41, formerly of Melksham in Wiltshire, and of London.

HARTILL.—On Aug. 28th, at Sutton Coldfield, W. H. Hartill, M.R.C.S., L.S.A., of Walsall-road, Willenhall, Staffordshire, aged 53.

JACKSON.—On Sept. 1st, at Princess-square, Plymouth, Louis Pilkington Jackson, L.R.C.P., &c., aged 26.

KERNOT.—On Sept. 5th, at his residence, Bishnauth, First Avenue, Brighton, Charles Noyce Kernot, Esq., M.D., F.R.C.S.E., Lic. Med., &c., of Dalhousie-square, Calcutta, aged 49. Indian and Australian papers please copy.

SMITH.—On Aug. 26th, at St. Aubins, Jersey, James Edward Smith, M.R.C.S., &c., aged 31.

WILSON.—On Sept. 10th, suddenly, at the Cannon-street Hotel, David Wilson, M.D., of Brook-street, Grosvenor-square.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, September 12th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Sept. 6	30·30	N.E.	60	58	108	72	57	..	Overcast
" 7	30·18	E.	59	57	82	67	56	..	Overcast
" 8	30·12	S.W.	64	57	87	67	53	..	Cloudy
" 9	30·15	S.W.	62	59	107	76	55	..	Cloudy
" 10	30·25	S.W.	62	60	102	79	59	..	Cloudy
" 11	30·17	S.W.	67	62	115	83	60	..	Cloudy
" 12	30·18	W.	68	64	117	79	63	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

OUR STUDENTS' NUMBER.

WE publish the following items in addition to, or in correction of, information given last week.

In an account of the changes in the lectures at the London Medical Schools in our last issue we inadvertently omitted those which had taken place at the London School of Medicine for Women, and also those in the staff of the Royal Free Hospital to which it is attached. Mrs. Scharlieb lectures on Diseases of Women, and is succeeded by Mr. Dawson in the joint lectureship on Forensic Medicine and Hygiene. Dr. H. W. G. Mackenzie gives Pathological Demonstrations once a week. Demonstrations in Auscultation and Percussion are given by Dr. Calvert. Mr. Berry holds classes in Surgery. Mr. Battle succeeds Mr. Barrow as demonstrator in Practical Surgery.

At the *Royal Free Hospital* Dr. Cockle has been appointed Consulting Physician, and is succeeded by Dr. Sainsbury. Dr. Calvert was appointed Assistant Physician, and later Dr. F. W. Andrewes was elected as an additional Assistant Physician in charge of outpatients. Mr. W. H. Dodd has been appointed Surgical Registrar (a new appointment), and Mr. E. C. Stabb Senior Resident Medical Officer.

Hospital for Sick Children, Great Ormond-street.—With respect to this hospital, it should have been stated that clinical teaching is carried on, courses of lectures being delivered by members of the medical and surgical staff at stated periods during the session.

Bethlem Hospital.—Students of the third year are allowed to attend the practice of this hospital gratuitously. This is in addition to the provision for Resident Clinical Assistants.

Aberdeen Royal Infirmary.—The paragraph on p. 509, contains some inaccuracies; we therefore reprint it in its correct form, as follows:—The Infirmary contains about 250 beds. Physicians: Drs. J. W. F. Smith-Shand, Angus Fraser, and Blaike Smith. Surgeons: Messrs. A. Ogston, J. O. Will, and R. J. Garden. Junior Surgeon: J. Hall. Ophthalmic Surgeon: Mr. J. Mackenzie Davidson. Pathologist: Mr. David James Hamilton. Dental Surgeon: Mr. Williamson. Treasurer and Secretary: Mr. W. Carnie. Also in the paragraph referring to the same institution, on p. 526 the first and last sentences should have been omitted, the appointments therein mentioned not having been made recently.

Dr. E. S. Nutting. — The American Medical Association, Chicago, Illinois.

DIABETIC URINE.

To the Editors of THE LANCET.

SIRS,—I should be glad if anyone could tell me what to add to diabetic urine to take the sickly smell away. After standing for some time in the chamber-vessel it becomes unpleasant.—Yours truly,

Sept. 11th, 1889. ASBESTOS.

LEPROSY IN IRELAND IN THE SEVENTH CENTURY.

FECHIN, who figures as the first presbyter named in the Third Order of Irish Saints, according to the famous catalogue given in Archbishop Ussher's "Britannicarum Ecclesiarum Antiquitates," is an interesting example of the circumstance, brought out into strong relief by Montalembert, that the early mediæval monks were the depositories and practitioners of the best medical knowledge of the time. There is, of course, much of the miraculous recorded in his name which sober history must reject; but, when all reasonable deduction has been made, a residuum of fact remains which the annalist of medicine cannot overlook. S. Fechin's sphere of activity was mainly in the West of Ireland, and according to Archdeacon O'Rorke, the historian of the County Sligo (Dublin: James Duffy and Sons), leprosy was the disease the saint was most frequently called in to cure. At Fore he was one day begged by a loathsome leper to take him in charge, and Fechin, having carried him on his back to the monastery, left him in the hospital and consigned him to the care of Themaria, wife of King Domnald, who, being promised a heavenly crown in recompense, undertook the unpleasant task. The Queen tended the patient devotedly, though some of her duties were so disgusting that, according to the Archdeacon, they had better remain in the obscurity of the old Latin biographer: "Inter alia dura ministeria leprosus, divinum amorem allegando, ab ea petivit, ut purulenta phlegmata e naribus suis proprio ore exsugat." The heroine had her reward; for (and here the miraculous comes in) "next day, when the saint was going to the hospital, he saw a globe of fire ascend towards heaven from the roof of the building, and on entering the sick room found that the man they had been nursing, and who had departed in the form of fire, was no other than our Lord Himself—the whole occurrence illustrating the truth of the words, 'Inasmuch as ye did it unto one of these the least of my brethren, ye did it unto me.' In going away the leper left behind a staff and a lump of the purest gold, with directions to the Queen to give them to Fechin, which she did, and the staff became the famous *Bachal Fechin* with which the saint is supposed to have performed many miracles through life, and which was held in great reverence after his death; but the gold he employed in building hospitals and in other works of charity." Skilfully disentangling this and such-like legends from their mythopœic drapery, Archdeacon O'Rorke accumulates a mass of evidence, corroborated from other sources, which makes it clear not only that the chief, if not the sole, practitioners in Ireland in the seventh century were monks, but that the disease they were most commonly confronted with was leprosy, wrongly supposed to have been first brought into Europe by the Crusaders.

G. F. H. (Marazion).—Probably the Medical Defence Union, the offices of which are in Edmund-street, Birmingham, would take up the case if the facts were represented to them.

Club.—The B.P. does not give the formula for Parrish's food. The quotation was correct for syr. fer. phosph.

Mr. Alfred Geo. Beale.—Compound tincture of benzoin, or tincture of guaiacum.

PROFESSIONAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—I have been in general practice for thirteen years, after holding hospital appointments of the highest order, and during the years I have been connected with the profession (over twenty years) I have never made a single professional enemy amongst my neighbours. My initials are J. J. G., well known to most West-end people. The patient I will call Y., and the medical brother of whom I complain Z. Y., suffering from double pneumonia and also heart mischief, was my patient, and I visited him daily. He went on very well under the usual treatment until Saturday, July 13th, when his wife allowed him to get out of bed and sit in front of an open window without my knowledge. On Sunday I found the patient not so well. On Monday morning the temperature was 104°, with evident signs of a return of the inflammation. I saw him again about 2 o'clock and also at 3. His breathing then was not favourable. I recommended his wife to call in a physician if she was not satisfied with my treatment. To this she did not consent, being sure that I was doing all I could for her husband. I made another call at 5.30, when, to my astonishment, the wife told me that she had had another doctor to see the patient, and that he was going to call again in the evening. Of course, under the circumstances I gave up the case at once. In the evening I received from Dr. Z. the following letter:—

"MY DEAR MR. G.,—I was called in to see a man by name Y——. That no misunderstanding should arise, I let you know this at once. I find that my interpretation of the laws of etiquette differ from that of some of my neighbours, and I much regret this; still, it is a pity that there should be any want of confidence between one man and another. Mrs. Y. did not send for me; a patient of mine, a friend of theirs, summoned me in haste. I have given digitalis &c., and promised to see him again, they undertaking in the meantime to see you. Shall I meet you there? Will you arrange this?—Yours, &c., Z."

The same evening, later on, Z. called on me, and I then informed him that he had acted not only unprofessionally but ungentlemanly, considering we were neighbours. Finding that there were many reports

set about which were detrimental to my character, I sent the following letter to Z. :—

"MY DEAR SIR,—I write to inform you that through certain circumstances which have occurred during the week with regard to Y. and your laws of medical etiquette, I shall be obliged to ask the opinion of the medical papers for the sake of my own reputation.—Yours truly, G."

I received a reply giving me leave to place it before the medical world.

From the above I would just ask if Z. was justified in seeing Y., knowing that J. J. G. was in attendance, and if Z. was only called in by one of his own patients and not by Mrs. Y., was it not his duty to acquaint me of it, and make me a *present* of his visit? Z. is a younger man than myself, and his qualifications are no better than my own? Poor Y. is no more. Not even Z.'s digitalis could keep him alive. The last day I saw Y. I was giving him digitalis and Warburg's tincture, so that Z. did not make any change of medicine. I am, Sirs, yours truly,

September, 1889. J. J. G.

*** We think J. J. G. has very good right to complain of Z. It is the first time we ever heard of a practitioner thinking it right to undertake the charge of another practitioner's patient—not at the request of the patient or his near relatives, but of a friend. Our correspondent has the satisfaction of being in the right and of having his treatment only confirmed by Z., who should have refused to see the case except in consultation with the practitioner in attendance.—ED. L.

A. L.—All sudden illnesses, such as the falling sickness, for which no cause was apparent, were attributed by the Greeks to a deity whose resentment they sought to overcome by a hymn which had the force of a charm. In the Medea of Euripides (v. 1172) Pan is supposed by the female attendant to have caused the convulsions under which the King's daughter died, until the poisoned robe and chaplet, the gift of the murderess Medea, were found to have induced the symptoms. A systematic medical commentary on the classics is still a desideratum.

"JUMPERS."

DR. BENNETT of Griqualand writes in the *South African Journal* an account of a peculiar nervous affection which is met with among the Griquas and other natives and individuals of mixed descent living in Griqualand. He suggests that perhaps the affection is similar to that prevalent amongst the French Canadians, and known there by the name of "Jumpers." Dr. Bennett says :—

"The affection is entirely confined to the male sex, and I have never seen or heard of a case in the female. The victims of this strange form of neurosis go through the most extraordinary and grotesque antics on the slightest provocation. A whistle, a touch, a shout—anything, in fact, sudden and unexpected, will 'set them going.' Some will stiffen their limbs, make hideous grimaces, and valse about as if they had no joints in their body. Others will jump wildly about like dancing dervishes, imitating the particular sound that had acted as an exciting cause. Some, again, will make use of the most obscene expressions on a transient impulse, correcting themselves immediately afterwards, and expressing their regret for having used such language, whilst others, on the spur of the moment, will do anything they are told to do. If they should happen to have a piece of tobacco in their hand, and one should suddenly shout, 'Throw it away!' they will do so at once, running away for a short distance, and trembling all over their body. I remember one case in particular; it was that of a 'Bastard' boy, a mason by trade. He had been handed a piece of tobacco, and the person who handed it to him shouted out suddenly, 'Throw it away; it is a snake!' He first danced about wildly for a short time, and then ran away as fast as he was able; but he had not gone far when he fell down in a 'fit,' and it was some time before he recovered."

As to the probable cause of this affection, Dr. Bennett is disposed to ascribe it to the indiscriminate intermingling of the blood of different racial types, and the intermarriage of those standing in close relationship to one another.

A CAUTION.

To the Editors of THE LANCET.

SIRS,—During last week a man answering the following description has called at 8.30 in the morning at the houses of two neighbouring medical men, pretending he had come from a patient, and on the servant coming downstairs after delivering the message man and property (in one case a heavy marble clock) had gone. As he will now probably visit another district, I write to put other medical men on their guard. Aged about thirty; height, 5 ft. 7 in.; complexion pale; hair and very slight side whiskers dark; dress, black diagonal jacket suit; black, hard, round felt hat; appearance of a gentleman's manservant. By inserting this letter you will greatly oblige, Yours truly,

London, W.C., Sept. 10th, 1889. A VICTIM.

Mr. A. H. Boys.—It is difficult to give a definite opinion in the absence of knowledge of the exact facts; but on the supposition that the statement submitted to us is in the main a fair representation of the case, we think the charges cannot be considered exorbitant.

Dr. Naismith.—Yes, in an early number.

THE LATE DR. HABERSHON.

IT was our intention to publish this week a notice of the life and professional career of the late Dr. Habershon; but the sources of information being at this holiday season widely scattered, it will be convenient to defer what we trust will be a complete record until the end of the present month.

A. R. J. asks for information as to a method of preparing the labels on dispensing bottles in a surgery so that liquids do not affect them, and so that they are waterproof and can be gently washed when dirty.

H. Sherwood.—Certainly not.

THE APPROPRIATION OF PATIENTS BY CONSULTANTS.

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me if it is right, after a consultation with a so-called specialist, for him (the specialist) to see, and afterwards prescribe and treat that patient to whom he was introduced, without the knowledge of the usual attendant (the introducer), and what is your opinion as to his conduct.—I am, Sirs, yours faithfully,

Sept. 2nd, 1889. F. A. MITCHELL.

*** We think that the "so-called specialist" acted wrongly, and would be the better for some special study in medical ethics.—ED. L.

Medicus.—We think there must be some mistake in the case our correspondent sends us. We should require some more detail before we could publish his letter. He does not even inform us where the occurrence took place or the name of the officer.

FALLING HAIR.

To the Editors of THE LANCET.

SIRS,—I have at present a lady patient under my care whose hair has been coming off in large quantities for some months past while being combed. I should feel much obliged if you or any of your numerous correspondents would kindly suggest a remedy for treatment of same.

I am, Sirs, yours faithfully,

Sept. 4th, 1889. SCARPA.

ERRATUM.—Our attention has been called to a slight error which occurred in our annotation headed "The Value of Medical Charities" in THE LANCET of Aug. 3rd, page 232, where the executors of the late Mr. John Griffith are described as "Mr. Samuel Clewin and Dr. Daniel Clewin Griffith," instead of *Dr.* Samuel Clewin and *Mr.* Daniel Clewin Griffith.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Henry Acland, Oxford; Mr. Rivington, London; Comte de Loverguy, London; Mr. H. F. Bailey, Blackheath; Dr. E. P. Manby, Brighton; Dr. Percy Smith, London; Dr. Kirk, Partick; Mr. H. J. Newcome; Sir James Sawyer, Birmingham; Dr. T. Oliver, Newcastle-on-Tyne; Dr. Leslie Phillips, Birmingham; Dr. O. Sturges, London; Messrs. Wilson and Son, Harrogate; Mr. Sturridge, Kendal; Mr. J. M. Davidson, Aberdeen; Dr. Naismith, Ayr; Mr. Boys, St. Albans; Dr. C. Begg, Edinburgh; Mr. H. E. Jones, Liverpool; Mr. Ellice-Clark; Mr. Simpson, London; Mr. Meadows, Hastings; Dr. Dick, Glasgow; Dr. Blakie Smith, Aberdeen; Mr. B. Hollander, London; Messrs. Robertson and Scott, Edinburgh; Mr. Stebbing; Dr. L. Wilde, London; Mr. E. du Cane, Dublin; Mr. H. Fox, Newcastle-on-Tyne; Messrs. Burgoyne and Co., London; Mr. C. Umney, London; Mr. Bolton, Tunbridge Wells; Mr. Reubman, London; Dr. Helm, Mavazion; Messrs. Millin and Co., Belfast; Mr. Grier, St. Ives; Dr. Heron, London; Mr. W. Anderson, London; Dr. Manning, Gladesville, N.S.W.; Dr. Hueppe, Prague; Surgeon-Major Laurie, Hyderabad; Dr. Gregg, Bengal; Dr. B. Anningson, Cambridge; Dr. O'Neill, Lincoln; Dr. Allwright Brighton; Major-General Wardell; Mr. Haviland, London; Dr. A. Duke, Dublin; Mr. Butterfield, Sevenoaks; Mr. Struthers, Aberdeen; Mr. Wilson, Plymouth; Mr. Beattie, Ireland; Messrs. Wyleys and Co., Coventry; Mr. Stubbs, London; Mr. Jones, London; Messrs. Lee and Martin, Birmingham; Miss Manning, Towcester; Messrs. Waddie and Co., Edinburgh; Mr. Holden, Liverpool; Mr. Pfister, London; Mr. Vinkas, London; Mr. Clarke, Morpeth; Dr. Lyon, Houghton-le-Spring; Mr. White, Chicago; Dr. Davies, Wrexham; Messrs. Smith and Botwright, London; Mr. Garrett, Bournemouth; Messrs. Mayer and Meltzer, London; Mr. Bowker, Scarboro'; Mr. Vinter, Devonport; Dr. Morris, Halling; Dr. Wiener, Vienna; Mr. Lamond, Glasgow; Mr. More, Kettering; Mr. E. F. Neve, Kashmir; Mr. Cole, Holywell; Dr. Thomson, Ampthill; Mr. Hearnshaw, Sleaford; Mr. Mills, London; Messrs. Livingstone, Edinburgh; Mr. Hordley, Stoke-upon-Trent; Dr. Collier, Suffolk; Mr. Keeley, Nottingham; Mr. Birchall, Liverpool; Messrs. Orridge, London; Dr. Shirtliffe, Kingston-on-Thames; Mr. Fenwick, London; Mr. Campbell, London; Altschull; Vera; A. R. J.; Ollipod Denta; A Victim; Medicus; Royal Portsea and Gosport Hospital; Asbestos; Alpha, Birmingham; Sanitas Co., Birmingham; G. P., Sheerness-on-Sea; Secretary, Nottingham General Hospital; General Hospital, Nottingham; London Lock Hospital; Lillistine, Willesden; Andrew, Huddersfield; Nurse Gooding, Godmanchester; Garman, London; Dakin, London; Salve Lardum; Beta, Lordship-lane; House Surgeon, Halling; Salford Royal Hospital.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Ackland, Exeter; Mr. Carter, London; Mr. Bell, Bury St. Edmunds; Mrs. Lawrence, Wolverhampton; Mr. Daniell, Port Talbot; Mr. Notley, Birmingham; Mr. Craig, Wick; Messrs. Easun and Son, Dublin; Mr. Purland, Woolwich; Mr. Woodward, Tunbridge Wells; Mrs. Lush, Salisbury; Mr. White, Suffolk; Mr. Travis, West Kensington; Mr. Clark, Doncaster; Mr. Andrew, Stockport; Mr. Van Praagh, London; Mr. Crassweller, Highbury; Mr. Harries, South Wales; Mr. Davis, London; Mr. Adam, Crieff; Messrs. Ormrod and Dudgeon, Workington; Mr. Williams, Holyhead; Mr. Nutman, Great Yarmouth; Mr. Storey, Kirton; Mr. Keens, Luton; Messrs. Pawsey and Co., Ipswich; Mr. Heywood, Manchester; Mr. Lawrence, Bury St. Edmunds; Mr. Weddell, Newcastle-on-Tyne; Messrs. 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H., Leicester; Clarence-House, Southend; Savory, London; H., London; P. H., London; Irish, London; F. H., London.

Harrow Gazette, Mining Journal, Educational Times, Christian Commonwealth, Barnsley Chronicle, Lymington Chronicle, The Scotsman, The Australian Irrigation Colonies, Christian World, Newcastle Daily Leader, Bath and Cheltenham Gazette, Glasgow Herald, Maidstone and Kentish Journal, Child's Guardian, Masonic Review, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, September 17.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

Wednesday, September 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, September 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Friday, September 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, September 21.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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